[c J]

Librarian }
Ackd } 14/9/14

1913

COUNTY BOROUGH OF SOUTH SHIELDS.

ANNUAL REPORT OF THE MEDICAL OFFICER,

1913.

D. MORLEY MATHIESON,

M.A., M.D., CH.B., D.P.H.

MEDICAL SUPERINTENDENT OF THE BOROUGH ISOLATION HOSPITAL,
PRINCIPAL SCHOOL MEDICAL OFFICER,
CHIEF TUBERCULOSIS OFFICER,
BACTERIOLOGIST TO THE BOROUGH,
MEDICAL OFFICER OF HEALTH.

CHAIRMEN AND VICE-CHAIRMEN OF COMMITTEES.

Chairman of the Health Committee—Mr. Alderman Robertson.

Vice-Chairman of the Health Committee—Mr. Councillor Semple.

Chairman of the Education Committee—Mr. Alderman Hilton.

Vice-Chairman of the Education Committee—Mr. Councillor Richardson.

Chairman of the Medical Inspection of School Children Sub-Committee—
Mr. Councillor Lawson.

STAFF OF THE MEDICAL OFFICER'S DEPARTMENT.

Medical Officer of Health, Chief Tuberculosis and School Medical Officer, etc.
D. Morley Mathieson, M.A., M.D. (Edin.)., D.P.H.

Assistant Medical Officers.
J. Maxwell Taylor, M.A., M.B., D.P.H.
W. Campbell Lyons, M.B., D.P.H.

Operating Surgeon, School Surgical Clinic.
Robert Crosby, M.B., B.S., M.R.C.S.

School Dental Officer—P. W. Diack, L.D.S.

Borough Analyst—J. T. Dunn, D.SC., F.I.C.

Superintendent of Public Abattoir, and Inspector under the Food and Drugs Acts.
M. J. Pollock.

District Sanitary and Housing Inspectors.
W. Clark, R. W. Weir, R. Ayre, and W. Hill.

Inspector under the Shops Acts—W. Smith.

Health Nurses.
Mrs. M. W. Arthur, C.M.B., Miss P. M. Winter, Miss L. Allison.

Chief Clerk—J. Yeoman.

Clerk for School Medical Inspection—Miss J. P. Huggett.

Assistant Clerks—C. Hymers, H. Cosans, and J. Hilton.

Laborant—W. T. Foster.

Matron, Denes Isolation Hospital—Miss I. Ingram.

INDEX.

INDEX OF SECTIONS.

Page.
Preface .... VII.-VIII.
Vital Statistics—Population, Births, and Deaths 1
Notifiable Acute Infectious Diseases 6
Non-notifiable Diseases 20
Tuberculosis 22
Pathological Laboratory 31
Food and Water 33
Shops, Factories, etc. 38
Housing 42
Pregnancy and Childbirth 81
Children under School Age 85
School Medical Service 90
Appendix: Tables—Vital Statistics, Work of Sanitary Inspectors, Meteorological Observations, List of Houses dealt with under Housing Acts 125

GENERAL INDEX.

Area of Borough 42

Births 1
Birth-rates of the Country generally 1
Bronchitis 21

Cancer 21
Cerebro-Spinal Fever 14
Cholera 14
Clinics: Infants' 88-89
  School 106-110
  Tuberculosis 24
Common Lodging Houses 77

Deaths 1-5
Deaths (Tables) 126-143
Death-rates for the Country generally 5
Denes Isolation Hospital 14-18
Diarrhœa 20, 85-86
Diphtheria 11-12

Enteric Fever 12-13, 18
Erysipelas 14

Factories, Workshops, etc. 38-39
Flies and Spread of Infection 85-87
Food Inspection 33-37

Health Visitor 87-89
Hospital, Denes Isolation 14-18
Hospital, Isolation: Provision of New 11, 12, 19
Hospital, Smallpox 18-19
Housing 42-80, 149

Infant Mortality 3, 81, 85-89, 142-143
Infectious Diseases (Notifiable) 6-19, 144
Infectious Diseases (Non-notifiable) 20-21
Influenza 21
Inquests 3

Page.

Inspectors, Sanitary: Summaries of Reports ... 145-147
- Food: ,, ,, ... 34-35
- Shops: ,, ,, ... 40

Institutions (Public): Deaths in ... 2

Laboratory ... 31-32

Measles ... 20
Medical Inspection of School Children:
- Routine Inspections ... 90-101, 110-111
- Special Inspections ... 101-104
- Treatment ... 104-110

Membranous Croup ... 11-12
Meteorology ... 148
Midwives, Supervision of ... 81-84
Milk Supply and Tuberculosis ... 28

Nuisances dealt with ... 146

Open-air Schools ... 115-118

Plague ... 14
Pneumonia ... 20-21
Poliomyelitis, Acute Anterior ... 8
Population ... 1, 61
Public Abattoir ... 35-36
Puerperal Fever ... 14, 84
Pulmonary Tuberculosis ... 4, 22-30

Relapsing Fever ... 14

Sanatorium Accommodation ... 27
Scarlet Fever ... 7-11, 15-18
Schools and Infectious Diseases ... 10, 20, 103, 119
School Medical Service ... 90-123
Seamen's Lodging Houses ... 77
Shops Inspection ... 40-41
Spitting: Byelaw *re* ... 28-30
Smallpox ... 13, 18-19
Structural Improvements effected ... 147

Transferable Deaths ... 2, 140
Tuberculosis: Deaths from ... 4, 22
- Notification of ... 23
- Extent of the Disease ... 23
- Establishment of Clinic ... 24
- Administrative Enquiries ... 25-27
- Hospital and Sanatorium Accommodation ... 27-28
- Milk Supply and Infection ... 28
- Control of Indiscriminate Spitting ... 28-30

Typhoid Fever ... 12-13, 18
Typhus Fever ... 14

Uncertified Deaths ... 3

Visits of the Inspectors ... 34, 40, 145

Water-carriage System ... 87
Water Supply ... 37
Whiteleas Smallpox Hospital ... 18-19
Whooping Cough ... 20

SUMMARY OF VITAL STATISTICS, ETC.

Population at 1911 Census		108,647
Population estimated to middle of 1913		110,513
Area of Borough		2,391 acres
Density of Population per acre.		46.2
Births during 1913		3,495
Deaths during 1913		2,011
Birth-rate, 1913.		31.1
Death-rate, 1913		17.9
Infant Mortality Rate, 1913.		117
Tuberculosis death-rate :	Pulmonary	1.33
	Non-pulmonary	0.66
	Total.	1.99
Death-rate from other notifiable infectious diseases		0.50
Number of Insured Persons, 31st December, 1913		37,424

Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

https://archive.org/details/b30115346

PREFACE.

The greater part of this, my third Annual Report, was prepared earlier in the present year and issued to the Committees concerned. The publication of the remaining sections, dealing chiefly with vital statistics and the incidence of infectious disease, has been unavoidably delayed.

The year 1913 has been marked not only by great pressure of what may be called routine work, but also by noteworthy extensions and developments, in new directions, of the health administration of the Borough.

An increase in the incidence of Scarlet Fever which became apparent in the early summer quickly assumed an epidemic character. The severity of the outbreak was checked in the late autumn ; but well into the present year the incidence of the disease has continued high. The resources of my clerical and general staff have been taxed to the utmost, and many important investigations have had, during a considerable period, to be set aside.

The work of school medical inspection was, during the year, co-ordinated with the other health work of the Borough, and consolidated into one administrative department. School clinics were organised for dental treatment, for the operative treatment of surgical conditions, and for skin and eye diseases.

The first great step in the control of Tuberculosis was taken by the establishment of a Tuberculosis Clinic or Dispensary for the purpose of investigation, prevention, and treatment. Other advances, such as those in connection with the bacteriological laboratory, are referred to in the body of the Report. All these new developments involved a considerable amount of administrative labour and responsibility ; and it is gratifying to be able to report that they are now running smoothly and efficiently.

Progress was also made towards the provision of a modern Isolation Hospital for the Borough, and of sanatorium and hospital accommodation for the treatment of Tuberculosis. The Notification of Births Act was adopted; and, on a small scale, an Infant Clinic started.

A detailed report on the housing conditions in the Borough has been prepared, and will be found on page 42. May I repeat here what I have urged in previous annual reports —that a measure most acutely required in the interests of the public health is a town-planning scheme for the undeveloped hinterland of the Borough. The great discovery of the present day is that prevention *is* better than cure ; it has come to be realised that anticipation, going out to prevent evils, is an even more powerful weapon than that which deals with evils after they have arisen ; and that practical imagination is, from the point of view of economy, an essential quality in the management of civic affairs.

In conclusion I must allow myself the pleasure of testifying here to the loyalty of my staff during a year of exceptional strain.

D.M.M.

VITAL STATISTICS: DEATHS, Etc.

(A) POPULATION.

Estimated Mid-Year Population.

The estimated mid-year population (June 30th, 1913) was 110,513. This matter, together with the density of population, is discussed further on p. 61.

(B) BIRTHS.

1. Birth-Rate.

There were 3,495 births registered in the Borough during the 53 weeks ending January 3rd, 1914. These included 17 births transferred by the Registrar-General.

This corresponds to a *birth-rate of* 31.1 *per* 1,000 *of the population, per annum.*

Fifty twin births (100 children) are included in the births occurring during the year.

2. Comparison of Birth-Rate with Rates for Country generally.

	Per 1,000 of Population.
England and Wales	23.9
96 Great Towns, including London	25.1
145 Smaller Towns	23.9
England and Wales, less the 241 Towns	22.3
London	24.5
Durham Administrative County	30.6
South Shields	31.1

3. Distribution (Sexes: Legitimacy).

The proportion of male to female births was 1,098 : 1,000.

The percentage of illegitimate births was 3.6 as compared with 4.1 for 1912.

The distribution is shown in the following Table :—

Births.	Males.	Females.	Totals.
Legitimate	1,760	1,610	3,370
Illegitimate	69	56	125
Total	1,829	1,666	3,495

The number of births in each Ward is given on page 143.

(C) DEATHS.

1. Death-Rate.

2,011 deaths occurred during the year, *the death-rate being* 17.9 *per* 1,000 *of the population.*

The death-rates since 1901 are as follows :—

1901	20.6	per 1,000.
1902	19.8	,,
1903	17.6	,,
1904	18.9	,,
1905	17.1	,,
1906	19.0	,,
1907	18.0	,,
1908	16.8	,,
1909	16.6	,,
1910	15.2	,,
1911	17.4	,,
1912	16.0	,,
1913	17.9	,,

The standardized death-rate for 1913, corrected for age and sex distribution in accordance with the 1911 census, is 18.5.

2. Seasonal Death-Rate.

The following gives the deaths and death-rates for each quarter of the years 1912 and 1913 :—

	No. of Deaths.		Death-rate.	
	1912.	1913.	1912.	1913.
First Quarter	462	580	16.8	**20.9**
Second Quarter	377	433	13.7	15.7
Third Quarter	358	413	13.1	14.9
Fourth Quarter	**555**	**585***	**20.2**	19.7

* 14 Weeks.

3. Sex-Distribution of Deaths.

Of the total deaths, 1,074 were males and 937 females, a proportion of 1,146 : 1,000.

The proportion of male to female *births* was, as mentioned on p. 1, 11 to 10 ; while the *deaths* were in the proportion of 11½ to 10.

4. Transferable Deaths.

229 deaths occurred *outside* the Borough (172 being in the Union Workhouse) among persons belonging to the Borough. These 229 are included in the total number of deaths (2,011) stated above.

21 deaths occurred *within* the Borough among persons belonging to other districts. These have been transferred to the districts concerned, and are not included in the total deaths for South Shields.

5. Deaths in Public Institutions.

The number of deaths of South Shields residents which occurred in Public Institutions during the year is as follows :—

In the Union Workhouse, Harton	172
In other Institutions outside the Borough	38
In the Ingham Infirmary, South Shields	56
In the Borough Isolation Hospital, South Shields	15
In the Nursing Home, Wellington Terrace, South Shields	2

This makes a total of 283, which is 14 per cent. of all the deaths during the year. In the years 1910, 1911, 1912, the percentage was 16, 14, and 16 respectively.

6. Coroners' Inquests.

Coroners' inquests were held regarding 114 deaths—that is, in 5.7 of the total deaths during the year.

80 of these deaths were due to various forms of violence. (See Table I, pages 137 and 138).

7. Uncertified Deaths.

66 deaths (3.3 per cent. of the total deaths) were uncertified by medical practitioners or by the Coroner. Of this number, 22 were infants under one year old.

8. Infant Mortality.

(*a*) Rates.—There were 408 deaths in infants under one year old. This corresponds to an *Infant Mortality Rate of* 117 *per* 1,000 *births.*

There were 24 deaths in illegitimate infants under one year old ; giving an *Illegitimate Infant Mortality Rate of* 192 *per* 1,000 *births.*

The Infant Mortality Rates for the past thirteen years are as follows :—

1901	169	per 1,000	Births.
1902	149	,,	,,
1903	132	,,	,,
1904	144	,,	,,
1905	145	,,	,,
1906	150	,,	,,
1907	133	,,	,,
1908	133	,,	,,
1909	138	,,	,,
1910	111	,,	,,
1911	147	,,	,,
1912	106	,,	,,
1913	117	,,	,,

(*b*) Causes of Infant Deaths.—A summary of the causes of infant deaths is given in the Tables on pages 142 and 143.

9. Deaths from Tuberculosis.

Tuberculosis was responsible for *no less than* 11 *per cent. of all the deaths* recorded in the Borough in 1913. The deaths from the disease were as follows :—

Deaths from Tuberculosis of the Lungs	149
Deaths from other forms of Tuberculosis	74
Total	223

This gives a *Tuberculosis Death-rate* of 1.99 per 1,000 of the population.

In my Annual Report for 1911 I showed that Pulmonary Tuberculosis has not appreciably diminished as a proportional factor in the South Shields death-rate during the past forty years. I may re-state here the figures for the years 1901-1913 :—

			Per cent. of Total Deaths.
In 1901,	Pulmonary	Tuberculosis caused	7.9
,, 1902,	,,	,,	9.0
,, 1903,	,,	,,	9.8
,, 1904,	,,	,,	8.4
,, 1905,	,,	,,	7.0
,, 1906,	,,	,,	8.3
,, 1907,	,,	,,	9.4
,, 1908,	,,	,,	7.7
,, 1909,	,,	,,	7.3
,, 1910,	,,	,,	8.2
,, 1911,	,,	,,	6.9
,, 1912,	,,	,,	9.6
,, 1913,	,,	,,	7.4

Of the 149 deaths from Pulmonary Tuberculosis, 136 occurred in individuals between 15 and 65 years old—that is, at a *wage-earning age.*

10. Deaths from Principal Epidemic Diseases.

The seven "principal Epidemic Diseases" caused 179 deaths, as follows :—

Diarrhoea and Enteritis (under two years)	64
Measles	58
Scarlet Fever	31
Whooping Cough	11
Diphtheria	8
"Fever" (Enteric, Typhus, and Simple Continued Fever) (one of these deaths occurred outside the Borough, and was "transferred.")	7
Smallpox	0

This corresponds to a death-rate from all these diseases of 1.59 per 1,000 of the population. It will be noted that *this figure is much below the death-rate of Tuberculosis alone.* (See page 4).

11. Deaths from other Notifiable Infectious Diseases.

The following deaths occurred from other infectious and notifiable diseases not included above :—

Erysipelas	6
Puerperal Fever	5

12. Comparison of South Shields Death-Rates with those of Country generally.

The following Table shows the annual death-rates in England and Wales for 1913 :—

	General Death-rate.	Death-rate from Seven Principal Epidemic Diseases.							Infant Mortality Rate.
		Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria	Diarrhœa and Enteritis (under 2 years).	
England & Wales	13.7	0.04	0.00	0.28	0.06	0.14	0.12	†	109
96 Great Towns, including London	14.3	0.04	0.00	0.34	0.07	0.17	0.13	†	117
145 Smaller Towns	12.8	0.05	0.00	0.30	0.05	0.13	0.11	†	112
England & Wales, less the 241 Towns	13.1	0.04	0.00	0.20	0.05	0.12	0.11	†	96
London	14.2	0.02	..	0.34	0.04	0.17	0.09	†	105
Durham Administrative County	15.1	0.06	..	0.41	0.15	0.18	0.19	*0.85	137
South Shields	**17.9**	**0.06**	..	**0.51**	**0.28**	**0.10**	**0.07**	**0.57**	**117**

* At all ages. † Rates not available.

NOTIFIABLE ACUTE INFECTIOUS DISEASES.

(A) GENERAL STATISTICS.

1. Number Notified.

Under the Infectious Disease (Notification) Act, 1889, which was brought into force within the Borough in May, 1891, 1,280 notifications were received during 1913. The nature of these diseases, and the corresponding figures for the past 10 years, are shown in the following Table :—

Disease.	1904	1905	1906	1907	1908	1909	1910	1911	1912	**1913**
Scarlet Fever	278	227	217	325	292	494	231	160	273	**1108**
Diphtheria and Membranous Croup	73	103	168	133	128	93	82	71	62	**61**
Erysipelas............	99	117	104	64	97	89	72	72	65	**80**
Enteric Fever	59	84	54	48	39	30	27	33	18	**22**
Smallpox	101	100	1	..	..	..	11	2	1	**1**
*Chickenpox	411	327	..	..	..	..	..	..	..	..
Puerperal Fever	3	4	1	5	5	4	8	7	3	**5**
†Poliomyelitis	..	..	..	..	..	..	..	..	3	**3**
†Cerebro-spinal Fever	..	..	..	..	..	..	..	..	1	..
Continued and Relapsing Fevers	1	..	..	..	..	..	..	..	..	..
Typhus	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..
Totals	1025	962	545	575	561	710	431	345	426	**1280**

* This disease was made notifiable during the prevalence of Smallpox as a precautionary measure, but ceased to be notifiable in August, 1905.

† These diseases were made notifiable in March, 1912.

2. Seasonable Incidence.

The following Table shows the number of cases of Acute Infectious Diseases notified during 1913, under the Infectious Disease (Notification) Act, 1889, and the months in which the notifications were received :—

1913.	Scarlet Fever.	Diphtheria.	Erysipelas.	Enteric Fever.	Smallpox.	Puerperal Feve	Continued Fever.	Relapsing Fever.	Poliomyelitis.	Cerebro spinal Fever.	Typhus.	Plague.	Cholera.	Totals.
January ..	15	3	8	2	..	..	..	..	..	..	..	..	..	28
February ..	17	4	7	..	1	..	..	..	..	..	..	..	..	29
March	33	1	7	..	..	..	..	..	..	..	..	..	..	41
April	21	3	3	2	..	..	..	..	..	..	..	..	..	29
May	41	10	4	2	..	1	..	..	..	..	..	..	..	58
June	60	2	8		..	2	..	..	..	..	..	..	..	72
July	88	7	5	3	..	..	..	..	..	..	..	..	..	103
August	77	6	2	1	..	..	..	..	..	..	..	..	..	86
September	141	6	11	5	..	..	..	..	2	..	..	..	..	165
October ..	191	6	6	5	..	..	..	..	1	..	..	..	..	209
November..	243	4	10	2	..	..	..	..	..	..	..	..	..	259
December ..	181	9	9	..		2	..	..	..	..	..	..	..	201
Total ..	1108	61	80	22	1	5	..	..	3	..	..	..	..	1280

3. Age Incidence, and Locality.

For these particulars in connection with the Notifiable Acute Infectious Diseases, see Table 7, page 144.

(B) DISEASES IN DETAIL.

1. Scarlet Fever.

This disease, which for a remarkably long period had shown a comparatively low degree of prevalence in the Borough, assumed epidemic proportions last year, not only in South Shields, but in many other parts of the country. The likelihood of such an epidemic occurring has been pointed out in several of my previous reports. For example, in the Annual Report for 1912, I stated that "owing to the large numbers of susceptible children in the schools (*i.e.*, children who have not been protected by a previous attack) we must be prepared for an increased incidence of the disease at any time."

The year 1901 was the last in which a comparable outbreak occurred in the Borough; in that year 1,263 cases were notified in South Shields, among a population of 97,800, an attack-rate of 12.5 per 1,000. In the subsequent years, 1902-1912, the notifications fell to a comparatively low figure. Last year (1913) 1,108 cases were notified—an attack-rate of 10.0 per 1,000 of the population.

	Cases of Scarlet Fever.
1901	1,263
1902	834
1903	378
1904	278
1905	227
1906	217
1907	325
1908	292
1909	494
1910	231
1911	160
1912	273
1913	1,108

Distribution and Development.—The first evidence of localised increased incidence was seen in March, when 12 cases were notified from the Beacon Ward. In April only 5 cases occurred in this neighbourhood ; but in May 21 cases were recorded. In June there were 14 fresh cases in the Beacon Ward, and increased incidence was also observed in the Shields, Westoe, and Deans Wards, in which respectively 9, 9, and 11 cases occurred. The cases were almost uniformly of a mild type, the early symptoms being so slight as to be readily overlooked by parents. In July there was an increase in the numbers notified from the Beacon and Deans Wards ; and in August, Holborn, Laygate, and Rekendyke had respectively 6, 10, and 10 cases.

The total monthly notifications for the town during these first eight months of the year show a fairly gradual increase ; the figures being 15, 17, 33, 21, 41, 60, 88, 77. In September, however, a more rapid rise occurred, 141 cases being notified, practically every Ward with the exception of St. Hilda and Holborn contributing many cases. In October the new cases numbered 191, and in November 244. This was the height of the epidemic. In December 114 cases were notified, and since then there has been a fairly steady decline in the number of notifications received.

The highest number of cases existing in the Borough on any one day was 359, on December 2nd.

Type of cases and method of spread.—As has been stated above, the type of the disease was, in the great majority of instances, mild. While this was a fortunate feature so far as those attacked were concerned, it had the effect of facilitating the spread of the disease, as many cases were not recognised until a considerable period after onset owing to the mildness of the symptoms, and until infection had been unwittingly disseminated among those with whom the patient came in contact.

The late recognition of many cases is well shown in the following table :—

Day of Disease on which Cases were notified.	Number Notified.
1st	24
2nd	155
3rd	293
4th	237
5th	131
6th to 10th	159
11th to 15th	40
16th to 20th	16
21st to 30th	11
Later than 30th day	1
Date of onset unknown	41

There is no doubt that some mild cases escaped recognition altogether, and were not notified.

Although most careful investigations were made, no evidence was discovered of infection being conveyed by milk or other articles of food, and it may be definitely concluded that this means of transmission cannot be blamed as a serious factor in the spread of the disease.

Mortality.—Of the 1,108 cases, 30 died from the disease : 20 of these were home-treated cases. The *mortality rates* were as follows :—

	Mortality Rate.
All cases	2.7
Cases treated in Denes Hospital	1.6
Cases treated at home	4.3

The *death-rate* per 1,000 of the population was 0.28.

Hospital Accommodation.—Up to September 19th it was possible to remove to hospital all cases of the disease except where objection was raised by the parents, or where sufficient means of isolation were available in the patients' homes. From the beginning of the year to this date 370, or 86 per cent., of the 430 cases notified were admitted to hospital.

On that date, however, the accommodation of the hospital was entirely taken up, and it became necessary to select cases for admission ; those where home isolation was least adequate being given the preference. This unavoidable change in procedure was coincident with a rapid increase in the prevalence of the disease. Of the 678 cases which occurred during the remainder of the year, 274 or 40.4 per cent. were taken to hospital.

A measure of relief was obtained by the erection in the hospital grounds of a special hospital marquee, with space for 18 beds, for convalescent patients ; the extra accommodation thus provided being most useful and effective. This step was decided on in July. Incidentally it may be remarked that the novel experience of sleeping under canvas was highly appreciated by the younger patients ; and that no complication or unsatisfactory result of any kind arose.

(Fortunately, the hospital had not put upon it the additional strain of many cases of Enteric Fever. After 20th July only one case was admitted—on the 21st November—although there were a number of home-treated cases, and one patient was sent to the Jarrow Isolation Hospital.)

The total number of Scarlet Fever cases removed to Hospital during the year was 644, or 58 per cent. of the notified cases.

Schools.—School closure was not resorted to at any time. The question of its possible advisability was never lost sight of ; but after most careful consideration I concluded that the step was not desirable. A system of notification and exclusion of contacts was rigorously carried out. This policy I was able to pursue also in connection with the Sunday schools to a great extent, through the kind co-operation of the superintendents ; although it is obviously impossible to secure such effective control as in day schools. The statement of parents as to whether children who are contacts of a patient do or do not attend a Sunday school is the only source of information readily available.

The following Table gives the Scarlet Fever Attack-, Death- and Mortality-Rates, together with the percentage of cases removed to the hospital since compulsory notification came into force :—

Year.	Population	Attack-rate per 1,000 Population.	Death-rate per 1,000 Population.	Mortality Rate per cent. of Cases.	Percentage of cases Removed to Hospital.
1892	80,350	4.8	.12	2.5	34
1893	82,284	7.4	.38	5.2	27
1894	84,077	8.4	.39	4.6	28
1895	85,910	4.4	.18	4.1	33
1896	87,785	5.4	.18	3.3	40
1897	89,699	7.1	.15	2.2	40
1898	91,656	6.9	.25	3.6	42
1899	93,657	7.1	.21	3.0	42
1900	95,703	5.3	.21	4.1	55
1901	97,800	12.5	.60	4.7	39
1902*	101,801	8.2	.38	4.7	49
1903	102,561	3.7	.12	3.2	73
1904	103,327	2.7	.08	2.9	75
1905	104,099	2.2	.06	2.6	70
1906	104,876	2.1	.06	2.8	67
1907	105,659	3.1	.09	2.8	68
1908	106,448	2.7	.08	3.1	75
1909	107,244	4.6	.18	3.8	67
1910	108,045	2.1	.06	2.6	69
1911	108,844	1.5	.01	0.6	72
1912	109,678	2.5	.05	2.2	79
1913	**110,513**	**10.0**	**.28**	**2.8**	**58**

* Borough extended.

2. Diphtheria (including Membranous Croup).

The *number of cases* of Diphtheria notified was 61 ; the *lowest number* for any year since 1902.

The *attack-rate* was 0.55 per 1,000 of the population. This compares favourably with the corresponding rate for the Administrative County of Durham—1.53 ; for the seventy-eight County Boroughs—1.49 ; and for all England and Wales—1.39.

The *number of deaths* from the disease was 8.

The *mortality-rate* (per cent. of cases) was 13.1.

The *death-rate* from Diphtheria was 0.07 per 1,000 of the population.

The *home accommodation* in connection with the cases notified during 1913 can be gathered from the following :—

One-roomed houses : 1 primary case occurred in a one-roomed house, the number of inmates being 6 (2 adults, 4 children under 15 years of age).

Two-roomed houses : 11 primary cases occurred in two-roomed houses, the average number of inmates being 5 (3 adults, 2 children). Two of these cases died.

Three-roomed houses : 10 primary cases occurred in three-roomed houses, the average number of inmates being 7 (3 adults, 4 children). Two secondary cases developed, and two deaths occurred.

Four-roomed houses : 13 primary cases occurred in four-roomed houses, the average number of inmates being 6 (3 adults, 3 children). Two secondary cases developed, and two deaths occurred.

Five rooms and over : 17 primary cases occurred in such houses, the average number of inmates being 7 (5 adults, 2 children). Three secondary cases developed, and two deaths occurred.

Shops were attached to three of the houses (3, 4, and 5 rooms respectively).

One case (fatal) also occurred in a Seamen's Lodging House and one case in a public institution.

The need for hospital accommodation for cases of Diphtheria has been urged in previous annual reports. The home accommodation, as shown above, is in many cases such as to allow of neither adequate nursing for the patient nor efficient isolation in the interests of the other members of the household or of the general public. Most fortunately, the type of Diphtheria prevailing has been of comparatively low infectivity. But for this the Borough could hardly escape for long a serious outbreak of the disease.

3. Enteric Fever.

The *number of cases* notified during the year was 22. Of these cases 17 were males, and 5 were females.

The *cases removed to the Isolation Hospital* numbered 9 : that is, 41 per cent. of the total number.

The *attack-rate* for Enteric was 0.20 per 1,000 of the population. This is lower than the corresponding rates for the Administrative County of Durham (0.38) ; for the aggregate of the seventy-eight County Boroughs (0.25) ; and for all England and Wales (0.22).

The *deaths* from the disease numbered 7 ; but only 6 of these were among local notified cases—that is, 1 occurred outside the Borough, and was "transferred" for statistical purposes to South Shields. Of these 6, 3 occurred among the 13 home-treated cases, and 3 among the 9 cases treated at the Isolation Hospitals.

The *mortality-rate* among the 22 cases was equal to a rate of 27 per cent.

The *death-rate* from Enteric was 0.06 per 1,000 of the population.

The *occupations* of those attacked by Enteric Fever were as follows :—Colliery Workers, 4 ; Moulders and Moulders' Labourers, 3 ; Seamen, 3 ; Clerks, 2 ; Railway Shunter, 1 ; Labourer (dock), 1 ; Barman, 1 ; Professional Footballer, 1 ; Housewives and Domestic Servants, 2 ; Dressmaker, 1 ; Teacher (woman), 1 ; Scholars, 2 (1 boy and 1 girl).

The *sanitary conveniences* in the dwellings of the patients were, in 20 instances, privy receptacles ; in the remaining 2 instances, w.c.'s. Of the former class, 6 patients lived in houses where the privy receptacle was used by only one tenant ; 11 in houses where the privy receptacle was used by two tenants ; 1 in a house where the receptacle was used by three tenants ; and 2 in houses where the receptacle was used by five tenants. In the latter class, both patients lived in houses where one w.c. was provided for each tenant.

The *source of infection* was investigated in each case. In addition to the 3 cases in Seamen, in 4 cases the patients had drank water which probably was polluted. In one case there was a history of shellfish, in another case of watercress, and in a third of ice-cream having been eaten ; in one other case the source of infection was supposed to be from recent suspicious illness in a neighbour's house. In 9 of the above cases there was evidence of the disease having been imported.

4. Smallpox.

On Saturday, February 1st, I was called in consultation to see a man in John Williamson Street. I found, on examining him, that he was in an early stage of Smallpox ; and had him removed to Whiteleas Hospital. Within two days he had developed a profuse and typical Smallpox eruption.

The other members of the family were removed to the Denes Hospital during the disinfection of the house, and all were vaccinated with the exception of one, who refused. The other contacts were traced and kept under observation. No fresh cases of the disease occurred.

The patient had arrived in Middlesbrough from Spain during the last week in January, and from his history it was evident that he had contracted the disease in Almeria, where Smallpox was prevalent.

Another patient was admitted to Whiteleas Hospital as suspected Smallpox during the month ; he proved, however, to be suffering from another disease, and was discharged.

Two intimations were received during the year from ports ; these contacts were kept under observation, but none of them developed the disease.

5. Erysipelas.

The *number of cases* notified was 80.

Six *deaths* occurred from the disease.

6. Puerperal Fever.

The *number of cases* notified was 5.

Five *deaths* occurred ; two of these patients, who were under treatment in the Ingham Infirmary, had not been previously notified.

Of the five notified cases, three occurred in the practice of midwives ; one of these three died. Two had been attended in child-birth by medical practitioners ; both of these died.

7. Cerebro-Spinal Fever.

No cases of this disease were notified.

8. Poliomyelitis Anterior Acuta.

Three cases were notified during the year, two cases in September (these cases were cousins) and one in October. No relationship was traced between the third case and the other two. The first two cases showed paralysis ; the third recovered without paralysis.

9. Cholera, Plague, Typhus, and Relapsing Fever.

No cases of these diseases occurred.

No Cholera or Plague "contacts" were reported during the year.

(C) CASES TREATED IN THE BOROUGH ISOLATION HOSPITALS.

1. Isolation Hospital, Dean Road.

(*a*) TOTAL CASES UNDER TREATMENT DURING 1913.—The following Table shows the *total number* of cases admitted to, and discharged from, the Denes Hospital during 1913.

Notified Diseases.	Remaining in on Dec. 31st. 1912.	**Admitted during 1913.**	Total Number Treated during 1913.	Discharged during 1913.	Died during 1913.	Remaining in on Dec. 31st, 1913.
Scarlet Fever	29	**645**	674	566	12	96
Enteric Fever	..	**8**	8	4	3	1
Suspects	..	**1**	1	1	..	..
Totals	29	**654**	683	571	15	97

(*b*) AVERAGE NUMBER UNDER TREATMENT DURING EACH MONTH OF 1913.—The following Table gives the *average daily number* of cases under treatment in Hospital during each month of 1913 :—

Notified Diseases.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Whole Year.
Scarlet Fever	22.5	20.6	31.7	33.7	36.1	54.6	70.2	96.8	115.0	130.4	146.4	111.1	**72.7**
EntericFever	1.0	1.0	..	0.3	1.5	1.0	2.1	0.4	..	..	0.3	1.0	**0.7**
Other	..	..	..	..	0.1	0.5	..	..	..	..	..	..	**0.1**
All diseases	23.5	21.6	31.7	34.0	37.7	56.1	72.3	97.2	115.0	130.4	146.7	112.1	**73.5**

(*c*) TOTAL CASES UNDER TREATMENT FOR PAST 10 YEARS—The following Table shows the number of cases admitted during each of the *past ten years* to the Denes Isolation Hospital. (The Hospital was first opened for the reception of patients in May, 1883) :—

Notified Diseases.	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Scarlet Fever	209	161	147	220	219	333	160	115	217	645
Enteric Fever	29	59	35	37	32	21	19	24	15	8
Other diseases	..	4	5	2	3	1	2	4	5	1
Totals........	238	224	187	259	254	355	181	143	237	654

(*d*) WARD DISTRIBUTION OF CASES REMOVED TO HOSPITAL.—The number of cases of infectious disease removed during the year to the Denes Hospital from the different Wards is shown in the Table on page 144. (One Scarlet Fever case was admitted from the Union Workhouse).

(*e*) SCARLET FEVER CASES TREATED IN HOSPITAL.—The *greatest number* of Scarlet Fever cases under treatment in Hospital at any one time was 159 on November 12th.

The *smallest number* of Scarlet Fever cases under treatment at any one time was 17 on January 27th to 29th.

The *average stay* in Hospital of Scarlet Fever patients was 45.1 days.

There were *twelve deaths* in the Hospital among Scarlet Fever patients, (after 1, 2, 5, 5, 7, 7, 8, 17, 24, 34, 48, and 73 days respectively).

Two of the deaths were due to other diseases than Scarlet Fever.

The *complications* from which certain of the Scarlet Fever patients suffered were as follows :—

	Present on Admission.	Developed after Admission.
Albuminuria	5	6
Adenitis *	24	12
Bronchitis	..	2
Broncho-Pneumonia	..	1
Bronchial Catarrh	3	..
Burns	2	..
Blepharitis	6	..
Crusts on Head	3	..
Epileptic Fits	2	..
Eczema	3	2
Epistaxis	1	..
Hæmorrhage (Bowel)	3	..
Heart Disease	9	..
Herpes	4	5
Jaundice	..	4
Lupus on Face	1	..
Meningitis	..	2
Œdema of Eyelids	..	2
Otorrhoea Single	12	23
,, Double	3	5
Psoriasis	1	..
Pneumonia, Double	2	1
Pneumococcal Empyema	1	..
Pleurisy	1	..
Petechial Rash	..	1
Purpura Hæmorrhagica	..	1
Rheumatism	4	11
Rhinorrhœa	19	8
Ringworm	5	7
Scabies	..	2
Styes	1	..
Urticaria	..	2
Uræmic Fits	1	..

* 13 cases were operated on.

(*f*) SECONDARY INFECTIONS AMONG SCARLET FEVER PATIENTS.—Of the 674 Scarlet Fever patients treated in Hospital during the year, eleven suffered concurrently from other infectious diseases. These cases of "secondary infections" are shown in the following Table :—

	Secondary Infections.			
	Present on Admission.	Developed after Admission.	Contracted in Hospital.	Total.
Measles	5	4	4	13
Whooping Cough	1	..	..	1
Chickenpox	2	1	6	9

"*Present on Admission.*"—Cases showing symptoms of the second disease at the time of their admission to Hospital. These patients were not put in the general Scarlet Fever wards, but in "isolation" wards.

"*Developed after Admission.*"—Cases which had been infected with the second disease before their admission to Hospital, but which developed symptoms of the disease only after admission. In most instances there was no means of knowing when a patient had thus been exposed to a secondary infection prior to admission; and when symptoms developed the patient was already in one of the general wards.

"*Contracted in Hospital.*"—Cases actually infected after admission. Owing to the limited accommodation at the Denes Hospital for isolation purposes, there is considerable difficulty in controlling outbreaks of secondary infections. In view of this fact, the small number of cases which contracted secondary infections in hospital during the year, as shown in the above Table, is a highly satisfactory result to be able to record.

The value of the "cubicle ward" system, in dealing with outbreaks of secondary infections, is now recognised ; and it is to be hoped that a ward of this nature will be provided in the new hospital at Cleadon.

(*g*) CASES OF SCARLET FEVER CONTRACTED IN HOSPITAL.—Eighteen patients, notified and sent in as cases of Scarlet Fever, contracted that disease after being in Hospital for periods varying from 3 to 23 days.

(*h*) CASES FOUND NOT TO BE SUFFERING FROM SCARLET FEVER.—24 patients were found on admission to have no symptoms of Scarlet Fever ; and after being kept under observation, were discharged within a month.

(*i*) "SECONDARY SCARLET FEVER."—2 patients admitted with symptoms of Scarlet Fever developed a secondary attack after 21 and 36 days respectively. Both cases desquamated after each attack.

(*k*) "RETURN CASES."—Patients discharged from hospital are somewhat indiscriminately regarded as the "cause" of any case of Scarlet Fever which may occur within the next few weeks in their homes or in the immediate neighbourhood. There is no doubt that true "return" cases do occur ; but many so-called return cases owe their infection to a different source. In this connection it is interesting to note that during the past year 12 patients were admitted to the Denes Hospital suffering from Scarlet Fever after a brother or sister had been in hospital between 5 and 6 weeks *and was ready for discharge.* Had these cases developed the disease a day or two later *after their relatives had been discharged* from hospital the children discharged would have been regarded as the source of infection.

The most frequent cause of true return cases is the "discharge bath." Patients are bathed and disinfected just before leaving hospital; and immediately on going out a catarrh of the nose and throat is frequently set up. This catarrh is in many cases of an infectious character. To obviate this risk it is desirable that every fever hospital should have a properly constructed discharge block, with accommodation for patients sleeping *overnight* after the discharge bath.

(*l*) ENTERIC FEVER CASES TREATED IN HOSPITAL.—The *greatest number* of Enteric (Typhoid) Fever cases under treatment in Hospital at any one time was 3 (July 19th to August 1st).

For 176 days there were *no patients* in Hospital suffering from Enteric Fever, owing chiefly to the fact that all the available accommodation was in use for Scarlet Fever patients. For this reason one case of Enteric Fever was sent to the hospital of the Jarrow Corporation.

Three deaths occurred from Enteric Fever (after 8, 23, and 31 days respectively).

(*m*) OTHER CASES TREATED IN HOSPITAL.—One patient suffering from Chickenpox was isolated for a short period in hospital.

2. Smallpox Hospital, Whiteleas.

(*a*) CASES FROM SOUTH SHIELDS UNDER TREATMENT DURING 1913.—During the year one case of Smallpox and one "suspect" were admitted to the Whiteleas Hospital. (See "Smallpox," p. 13).

(*b*) CASES FROM OTHER DISTRICTS UNDER TREATMENT DURING 1913.—No cases were admitted during the year from any of the other districts—the Urban Districts of Felling, Hebburn, Jarrow, and Southwick, and the Rural Districts of South Shields and Sunderland—the authorities of which districts are, with South Shields County Borough, the constituent authorities of the N.E. Durham Joint Smallpox Hospital Board.

During the year application was made by the County Borough of Sunderland regarding the admission of cases of Smallpox from that area to Whiteleas Hospital. The Joint Board subsequently with the consent of the constituent Authorities applied to the Local Government Board for an enlarged Order so as to include Sunderland as a constituent authority.

(*c*) TOTAL CASES UNDER TREATMENT IN LAST 20 YEARS.—The following is the number of cases treated in the Hospital since it was opened in 1893:—

YEAR.	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Cases of Smallpox	51	14	22	12	3	9	3	2	..	71	37
YEAR.	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	
Cases of Smallpox	103	101	2	..	..	1	15	2	1	1	

(D) NEW HOSPITAL.

The question of the provision of new isolation hospital accommodation on the Cleadon site was carefully considered by the Health Authority during the year. The whole subject is being gone into in detail; and it is to be hoped that during 1914 a scheme will be adopted, and that the provision of new hospital accommodation, so urgently required, will be got under way.

CERTAIN NON-NOTIFIABLE DISEASES.

1. Measles.

The outbreak of Measles which commenced in the later months of 1912 continued into 1913.

The *deaths* from the disease during 1913 numbered 58; the majority (34) of the deaths occurred during the month of January. The *death-rate* was 0.51 per 1.000 of the population.

Laygate Lane Infants' School was closed on account of the outbreak.

Fifty of the deaths occurred in children under 5 years of age; and 4 others were at the age of 5-6 years.

2. Whooping Cough.

The *deaths* from Whooping Cough numbered 11; all were children under five years of age.

The *death-rate* from the disease was 0.10 per 1,000 of the population.

3. Diarrhoea and Enteritis.

The *deaths* from these diseases in children under two years of age numbered 64.

The *death-rate* from these diseases was 0.57 per 1,000 of the population, or 18 per 1,000 births.

The *age distribution* of the children under one year old who died from these diseases was as follows :—

0 were under one month.
12 were one to three months old.
10 were three to six months old.
12 were six to nine months old.
14 were nine to twelve months old.

The *Ward distribution* of the disease is shown in Table 2, page 139, and in Table 6, page 143.

This disease is referred to later under "Infant Mortality," (p. 85.)

4. Pneumonia.

Pneumonia was responsible for 145 deaths, equal to a *death-rate of* 1.28 *per* 1,000 *of the population*—as compared with 137 deaths in 1912.

69 were cases of Broncho-Pneumonia, 26 of Lobar Pneumonia; 50 were not defined.

20	deaths occurred	under 1 year of age.
47	,,	between 1 and 5 years.
8	,,	between 5 and 20 years.
16	,,	between 20 and 35 years.
13	,,	between 35 and 45 years.
16	,,	between 45 and 55 years.
25	,,	over 55.

5. Bronchitis.

The *deaths* from Bronchitis during the year numbered 166 ; equivalent to a *death-rate* of 1.48 per 1,000 of the population.

6. Influenza.

There were 41 deaths from Influenza, equivalent to a *death-rate of* 0.36 *per* 1,000 *of the population.*

7. Cancer.

The total number of *deaths* certified as due to Cancer was 101 ; equivalent to a death-rate of 0.90 per 1,000 of the population.

The *age distribution* of the deaths was as follows :—

Under 5 years ..	3
5—25	1
25—	4
35—	13
45—	23
55—	26
65—	22
75—	8
85—	1

The *parts affected* are shown in the subjoined Table :—

Parts affected.	Males.	Females	Total.
Stomach, Liver, etc.	21	20	41
Intestines, rectum, & peritoneum	7	9	16
Female genital organs..........	..	11	11
Buccal cavity	7	1	8
Breast	..	6	6
Skin	2	..	2
Other parts or unclassified	14	3	17
Totals	51	50	101

TUBERCULOSIS.

(A) DEATHS FROM TUBERCULOSIS.

1. Deaths from all forms of Tuberculosis.

There were 223 deaths from Tuberculosis during 1913, as follows :—

Pulmonary Tuberculosis	149
Other forms of Tuberculosis	74
	223

This corresponds to a death-rate from the disease of 1.99 per 1,000 of the population :

Death-rate from Pulmonary Tuberculosis	1.33
Death-rate from other forms of Tuberculosis	0.66
Total	1.99

as compared with a death-rate of 1.92 in 1912.

The total deaths in the past five years are shown below :—

	1909.	1910.	1911.	1912.	1913.
Pulmonary Tuberculosis	130	135	130	168	149
Other Tuberculosis	68	76	63	43	74
Total	198	211	193	211	223

In considering the death-rate from this disease, it must be kept in mind that Tuberculosis runs a chronic course ; that the majority of those whose deaths are recorded in any year contracted the disease several years earlier.

2. Disinfection after Phthisis Deaths.

During the year effort was made to secure that disinfection was carried out in as many cases as possible after deaths from Phthisis.

The result has been that in connection with 57 per cent. of the instances where deaths had occurred from Pulmonary Tuberculosis the rooms which had been occupied by the patients were disinfected by the staff of my Department (as compared with 56 per cent. in 1912, and 20 per cent. in 1911), and in 59 per cent. bedding was removed to the Isolation Hospital and disinfected (as compared with 53 per cent. in 1912, and 42 per cent. in 1911).

Many of the deaths where no home disinfection is recorded as having been carried out occurred in the Workhouse Hospital and other institutions.

(B) NOTIFICATION OF TUBERCULOSIS.

The *compulsory notification of all cases* of Pulmonary Tuberculosis came into force on the 1st January, 1912 ; and of all cases of Non-pulmonary Tuberculosis, on 1st February, 1913.

The *total number of notifications* received during the year was 723. These related to 507 new cases—that is, in respect of a number of cases more than one notification was received.

The *source of the notifications* received was as follows :—

From medical practitioners *re* cases seen in private practice	405
From medical practitioners *re* cases seen in poor law medical practice, and from other poor law officers	131
From medical officers in general hospitals	64
From medical officers of approved sanitoria	64
From school medical inspectors	44
From medical officers of tuberculosis dispensaries	15

The new cases were distributed as follows :—

Pulmonary Tuberculosis	319
Non-pulmonary Tuberculosis	188
Total	507

(C) EXTENT OF THE DISEASE IN THE BOROUGH.

Number of Cases, 1913.

On the 1st January, 1913, there were on the Register of the Health Department the names of 457 patients suffering from Tuberculosis (all pulmonary cases).

During the year, 507 new cases were notified, 319 Pulmonary, 188 Non-pulmonary, so that the total number of cases under observation was 964.

Of this number, 30 left the town permanently ; 27 cases have been lost trace of ; *166 died from Tuberculosis ; and 15 died from other causes. (58†§deaths from Tuberculosis also occurred among patients who had not been notified).

Hence, on the 31st December, 1913, there remained on the Register the names of 726 patients who were at that date inhabitants of South Shields, and were suffering from Tuberculosis :—

Pulmonary Tuberculosis	583
Other forms of Tuberculosis	143
Total	726

---

* Including one outwardly transferable death.

† Including 6 pulmonary and one non-pulmonary tuberculosis deaths transferred to South Shields.

§ Eleven of these deaths occurred previous to notification coming into operation, viz., before 1st February.

(D) ESTABLISHMENT OF THE TUBERCULOSIS CLINIC OR DISPENSARY

Since December, 1911, I have seen patients who were suffering from Tuberculosis, and suspected cases, at my office. Many cases have been sent to me for diagnostic Tuberculin reaction, and a number of cases have been treated at the request of medical practitioners.

It was quite impossible, however, to find time to deal with anything like an adequate number of the cases in the Borough. The Health Authority, therefore, decided to establish on a comprehensive basis a Tuberculosis Clinic, with an additional nurse and an Assistant Medical Officer. This new scheme came into operation on 1st November, 1913 ; Dr. W. Campbell Lyons being appointed Assistant Medical Officer, and Miss Allison a Health Nurse.

The premises temporarily in use are rooms in my present Department. The permanent scheme approved by the Health Authority includes the taking over of the premises adjoining the Medical Officer's Department, which are at present used for Weights and Measures Inspection. These premises have the advantage of direct access from the street ; there are two separate entrances which patients will use, without needing to pass along or enter any of the corridors of the Municipal Buildings. The premises also will admit most readily of extension should this become necessary at any time. The great importance of having the clinic directly adjoining the main department requires no emphasizing.

The Tuberculosis Clinic will be the centre for the anti-Tuberculosis movement in the area—the common centre for the organisation of treatment, for consultative, diagnostic, educational, bacteriological and statistical work ; for the examination of contacts, and for the "after-care" or observation of patients who have been to Sanatoria. I have on previous occasions pointed out that the name "Dispensary," which is frequently given to this type of institution, is somewhat unfortunate, tending as it does to suggest merely a place where free medicines will be dispensed or distributed. To regard this as a prominent function of this "central unit" would be erroneous. The term "Clinic" on the other hand has no such associations ; it is associated rather in the public mind, in connection with School Clinics, with the organised effort of local authorities to treat and prevent disease.

(E) WORK OF THE TUBERCULOSIS CLINIC IN 1913.

Although work was being done throughout the year at my Department on "Dispensary" lines, the Tuberculosis Clinic proper was only established on November 1st. It is not proposed, therefore, to publish any report on treatment until the end of 1914.

(F) RESULTS OF CERTAIN INVESTIGATIONS.

During the greater part of the year it was not possible with our existing staff either to supervise, or to investigate adequately the circumstances of, the large number of cases on the Register.

The Tuberculosis Regulations of 1911 imposed an obligation on local authorities to make such enquiries or take such steps as might appear necessary or desirable for preventing the spread of infection, or for removing conditions favourable to infection. The new work involved in carrying out these requirements is work which is very exacting in character, and which covers a wide field. Each case requires to be visited frequently for the purpose of investigating sources of infection, etc. Enquiries have to be made tactfully, and with due regard to the privacy of the patient ; several visits often need to be devoted to obtaining information bearing on one case. Subsequent routine visitation is required to ensure that instructions on hygienic living, disinfection, etc., are being carried out.

The medical examination of contacts who may have been exposed to infection is another important branch of the work of prevention and early detection.

In my Annual Report for 1912 I dealt in some detail with the results of investigations as to the home circumstances of patients suffering from Tuberculosis ; sleeping accommodation ; family history ; source of infection, etc. These investigations are being continued ; a report which has recently been prepared for me by Dr. Lyons deals with these subjects, and is quoted below. As the work of the Tuberculosis Clinic progresses, a large amount of most valuable information will be accumulated which it is hoped will throw light on many aspects of the problem of the control of Tuberculosis in the Borough.

Home Circumstances.—There can be little doubt that adverse housing conditions take a prominent part in the spread of Tuberculosis. Elsewhere in the present report the question of housing is dealt with in detail (p. 42), and instances of overcrowded dwellings are given.

The majority of the cases of Tuberculosis notified are found to be inhabiting dwellings of 1 or 2 rooms.

Number of Rooms in Dwelling.	Percentage of all Cases notified.
1 and 2	57 per cent.
3	20 ,,
4	14 ,,
5	7 ,,
6 and over	2 ,,
	100 ,,

It must be remembered in considering these figures that a number of cases now living in small dwellings have, before contracting the disease, lived under better conditions, and been forced, owing to straightened circumstances, to move into less suitable quarters.

Generally speaking, the more overcrowded a house is the less clean it is. Many of the houses of 1, 2, and 3 rooms were found to be in a filthy condition. Two contrasting instances will help to illustrate the relation of overcrowding to the spread of consumption. Both are houses of two rooms; in both the head of the family (the father) is suffering from tuberculosis of the lungs. But in one house there are 9 persons (4 adults and 5 children); in the other house there are 4 persons (2 adults and 2 children). In the first house, 3 of the children sleep in the same room as the consumptive father; one child is at present in a sanatorium, and the other four on being examined by Dr. Lyons were found *all to be suffering from tuberculosis.* In the second house, the father sleeps in a bed by himself, his wife in a separate bed in the same room, and the two children in the second room; and on examination the wife and the children were found to present no evidence of the disease. The first house was found in a very dirty state; the second was well kept and clean.

Means of ventilation is found to be absent in a number of houses, but in many instances where there are adequate facilities one finds the fireplace blocked up, the windows tightly closed, and in some cases packed round with rags and paper.

Glandular Tuberculosis.—The incidence of tuberculous glands of the neck is relatively high in South Shields. This is of importance in the light of recent research which has shown that this form of tuberculosis can actually be traced in many instances to the drinking of infected milk. Reporting on this subject, Dr. Lyons states that "The theory that patients suffering from tuberculous glands of the neck do not develope pulmonary tuberculosis has been disproved at the Clinic. Many of the children under treatment here for glandular tuberculosis have signs of disease of varying extent in the lungs. On enquiring carefully into the history of these patients it is found that swellings in the neck were noted a long time before a cough developed. In many cases the children had been fed on cow's milk from birth. In this connection it is interesting to note that these patients improve more rapidly when treated with a human tuberculin than with a tuberculin derived from the bovine type of bacillus."

Conditions at Work.—The conditions under which patients work are of great importance, not only to patients themselves, but to their fellow workers. It may be stated at once that with proper precautions a consumptive may carry on his occupation without being in any way a source of danger to those around him. It would be a most undesirable result if the recognition of the infectious character of Tuberculosis were to lead to the idea that a patient suffering from the disease must be avoided as one would avoid a case of Smallpox. The nature of the infection is of a totally different character; and, provided the patient has been taught and carries out certain simple precautions, there need be no danger whatever of his infecting others. It would be a great injustice if an employer refused to take back into his employment a patient, say, returned from sanatorium, on the grounds that his presence was undesirable in the interests of the other workers.

On the other hand, it is necessary that the ordinary rules of hygiene should be observed in all workplaces, and direct attention paid to securing adequate and continuous ventilation.

(G) THE NEED FOR HOSPITAL AND SANATORIUM ACCOMMODATION.

The accommodation at present available for the treatment of patients in hospitals and sanatoria is totally inadequate. It has been possible to secure, for the treatment of insured persons, five beds only, at Stanhope and Wolsingham Sanatoria. There is no "hospital" accommodation.

The distinction generally drawn between the two forms of residential institutions for Tuberculosis is as follows:—

Sanatoria—for early curable cases;
Hospitals—for moderately advanced, and hopeless cases.

This distinction is an unfortunate one. Patients very quickly know that if they are sent to "the hospital" their outlook so far as cure is concerned is a bad one.

On the other hand there is no practical objection to the treatment of all forms and stages of the disease in *one* residential institution. Under this arrangement, patients are classified, not as "early" and "advanced," but as bedfast or "nursing" cases, and "ambulant" cases. The former may contain early cases whose condition is such that rest in bed is desirable; the latter may contain patients who are in an advanced stage of the disease but who are able to get about. This arrangement has the great practical advantage of avoiding unnecessary "labelling"; and there is no disease in which the mental attitude has a greater influence on the physical condition of the patient.

The Health Authority have at present under consideration the question of providing joint accommodation on the lines indicated above. Reports as to the extent and nature of the accommodation required have been prepared and considered. In the Interim Report of the Departmental Committee on Tuberculosis it is recommended that in any area the accommodation required will be to the extent of one bed for each 5,000 of the population for " early " cases, and similar accommodation for advanced cases. This would give for South Shields 22 beds for early and 22 for advanced patients—44 in all.

I have always been of opinion that the suggested standard was a very sparing one ; more especially for industrial communities. The result of the past year's investigations, and the number of notifications that have been received, have confirmed that opinion ; and the recommedation which I have put forward is that 66 beds be provided for the Borough ; 28 for " nursing " cases, 28 for ambulant cases, and 10 for children ; and that the possible need for extensions should be kept in mind. The question of "surgical" tuberculosis—chiefly cases requiring operative treatment—is not provided for in this estimate.

(H) MILK SUPPLY AND TUBERCULOSIS INFECTION.

Judging from the comparatively large number of children who suffer from glandular tuberculosis, there is reason to suspect that milk plays some part in the spread of the disease. It has been shown conclusively that milk from cows affected with tuberculosis of the udder and other organs can convey the disease to susceptible children.

The examination of milk for tuberculous infection can only be carried out satisfactorily by inoculation experiments. I hope that arrangements for this work to be done at the Municipal Laboratory will be made during 1914.

(I) THE CONTROL OF INDISCRIMINATE SPITTING.

It is now more than thirty years since it was conclusively proved that the expectoration of persons affected with pulmonary tuberculosis contained the germ which causes the disease—the Tubercle Bacillus. This is often present in enormous numbers. If such expectoration from a tuberculous patient is not destroyed, it dries up and the bacilli are carried into the air. Other individuals breathing this air inhale the bacilli ; these may lodge in the lungs and there set up the disease. There is no room for doubt that a large proportion of all cases of consumption owe their origin to infection inhaled in this way.

The amount of damage likely to be done by tuberculous sputum varies with the situation in which it is deposited. The bacilli in expectoration deposited in such parts of the open street as are exposed to direct sunlight (which is a powerful germ-destroyer) may be killed in a few hours. Sputum drying in places to which the sun has no direct access—on the sunless side of a street, under bridges, etc., or in rooms, theatres, railway carriages, railway stations, tram-cars, etc.—may remain virulently infective for long periods.

While tuberculosis is the most prevalent disease which is spread by expectoration, it is not the only one. For example, the infection of pneumonia and of cerebro-spinal fever may be conveyed in this way from one person to another.

With the exception of chronic lung diseases, there are few circumstances which necessitate habitual spitting. Tobacco smoking, for example, ought not to call for it.

By a large section of the community spitting in public is now regarded as a highly disagreeable practice ; and indeed there can be no strong reason advanced why this particular kind of human by-product should be looked upon with especial tolerance or favour. But while there has undoubtedly been a very distinct advance in general opinion of recent years, it is noteworthy that this advance has been confined almost entirely to the section of the community in which tuberculosis is relatively uncommon. There remains the majority who are thoughtless and potentially dangerous.

The need for some measure of control of this dangerous practice is particularly apparent in a seaport town such as South Shields, where the condition of the footpaths cannot be ignored. The educational effect on public opinion of bye-laws dealing with this question is perhaps even more important than the direct checking of the spread of infection.

Bye-laws for the control of spitting can be made under section 23 of the Municipal Corporations Act, 1882, which provides (subsection 1) that a council

> ". . . . may, from time to time, make such bye-laws as to them seem meet for the good rule and government of the borough, and for the prevention and suppression of nuisances already punishable in a summary manner by virtue of any Act in force throughout the borough, and may thereby appoint such fines, not exceeding in any case five pounds, as they deem necessary for the prevention and suppression of offences against the same."

After being passed by a local authority bye-laws are submitted for approval to the Home Office.

During the past year the South Shields Council, by a practically unanimous vote decided to apply for bye-laws prohibiting spitting

1. In public conveyances, public halls, public waiting rooms, and places of public entertainment, whether admission thereto be obtained upon payment or not.

2. On public footpaths.

The Home Secretary has approved the former bye-law ; but approval of the latter has been withheld for the present, application having to be made at the end of a year.

Posters bearing the following notice have been exhibited in prominent situations throughout the Borough :—

> "Spitting in Public Tramcars, Cabs, Public Buildings, "Halls, etc., is now a *punishable offence* within the town of "South Shields, any persons convicted being liable to a *fine* "of *Two Pounds.* The infection of Tuberculosis (Consumption) "and of many other Diseases such as Influenza, Diphtheria, "Common Colds, etc., is carried in the expectoration. The "Public are warned to guard against infection from this "source. No one should spit on any part of the Pavements "or Public Streets, except into the Channels or Street Gullies.
>
> By Order of the Town Council."

PATHOLOGICAL LABORATORY.

The work of the clinical and pathological laboratory continued to increase during the year. In 1911, the number of specimens examined totalled 65 ; in 1912, this number increased to 165 ; while during 1913, 641 specimens were examined at the laboratory. The nature of these examinations is shown in the following Table :—

	Positive.	Negative.	Totals.
Swabs for Diphtheria Bacilli..........	32	143	175
Sputum for Tubercle Bacilli	152	140	292
Widal examination (B. Typhosus)	22	21	43
,, (B. Paratyphosus)	2	16	18
Fæces for Amœba Dysenterica........	0	1	1
Pus (for Gonococci, etc.)	..	..	8
Blood for Malaria	1	4	5
,, for Filaria....................	1	0	1
,, enumeration of Corpuscles	..	..	1
,, estimation of Hæmoglobin	..	..	1
Urine for Sugar and Albumen	..	..	17
Urine for Tubercle Bacilli	0	3	3
Examination of Hair for Ringworm....	15	18	33
Cerebro-spinal fluid (for Diplo. Intracellularis Meningitidis)............	0	3	3
Milk for Tubercle Bacilli	7?	33	40
			641

The following is extracted from my 1912 Annual Report :—

> " Medical practitioners undertaking treatment of insured persons under the National Insurance Act are now expected to make use of all ' modern methods of diagnosis.' Modern methods of diagnosis include a large number of investigations for which a busy general practitioner has neither time nor special apparatus and training. Such investigations as the determining of the opsonic power of the blood, differential blood-counts, examination of pathological sections, the Wassermann reaction, etc., can be carried out only in a properly equipped laboratory."

In his report for 1912-1913, the Medical Officer to the Local Government Board refers to the valuable assistance to diagnosis of disease and to its treatment which the modern laboratory can give. Referring to those areas where no official arrangements are made for bacteriological investigations, Dr. Newsholme states that " where practitioners are thus left to their own resources, the conditions of medical practice among the great mass of the population do not enable them to obtain bacteriological aids to diagnosis except in isolated instances. There is no reasonable doubt that, as a result of the failure to use these means of diagnosis, a considerable mass of disease remains undetected, or detected only after delay, and preventative measures are rendered relatively ineffective." He also states that in many areas where facilities are provided by the local authority "the arrangements for examination of morbid material are *insufficiently known or appreciated*, and consequently much disease fails to be promptly diagnosed and its spread prevented." And also, "The lack of means for obtaining accurate knowledge of obscure cases treated in private and contract practice, and the resultant delay or inefficiency of treatment, must represent an enormous economic loss to the community, and a great amount of unnecessary sickness. . . . The problem has become more acute in view of the fact that one-third at least of private practice in the future will be practice under the Insurance Act. This practice will not be likely to be satisfactory unless patients under its conditions have the same modern facilities for diagnosis as are commonly available for hospital patients."

During the past year the limits of the work in the Clinical and Pathological Laboratory have been extended. Facilities are now available for carrying out any of the standard examinations and investigations required for diagnosis; including Wassermann examinations for the diagnosis of syphilis, blood counts, opsonic estimations, etc. It is hoped that these facilities will be extensively utilised, and that they will prove of much service in the investigation of the distribution not only of infectious diseases, but also of conditions which are not directly communicable. This wider scope for public health effort has always been emphasised by the Local Government Board.

FOOD AND WATER.

(A) FOOD SAMPLES TAKEN FOR CHEMICAL ANALYSIS.

One hundred and fifty samples were taken during the year, and submitted to the Borough Analyst. Of these, 12 were informal samples—1 of milk, 3 of butter, 3 of margarine, 4 of lard, and 1 of sweets. The following are particulars of the nature of the samples taken, of the results of the analysis, and of the action taken in certain cases :—

1. Milk.

74 samples were taken.
67 were "genuine" (one informal sample).
1 was deficient in natural fat, 5%—Letter of caution sent.
5 were deficient in non-fatty solids, as follows :—
Deficiency—2.2% ; 2.6% ; 2.7% ; 4.2%—No action taken.
Deficiency—3.4%.—Letter of caution sent.
1 was deficient in natural fat and non-fatty solids—6.6% and 12.4% respectively.—Proceedings taken ; fined 20s. and costs.

Of the 74 samples of milk, 21 were taken at the railway station. One of these samples was 5% deficient in natural fat, and another was 3.4% deficient in non-fatty solids ; the other 19 samples were "genuine."

All the samples were examined for the presence of a preservative. None were found.

2. Butter.

16 samples were taken.
13 were "genuine" (3 informal).
2 contained boric acid, 0.02% and 0.16% respectively.—No action taken.
1 contained 2% excess of water.—Letter of caution sent.

3. Margarine.

10 samples were taken.
9 contained boric acid, as follows :—
Proportion—0.07% ; 0.09% (informal) ; 0.10% ; 0.15% ; 0.16% ; 0.21% (informal) ; 0.22% ; 0.24% (informal) ; 0.30%.—No action taken.

4. Whiskey.

6 samples were taken. 5 were "genuine."
1 was 26.4% under proof.—Letter of caution sent.

5. Rum.

6 samples were taken. 5 were "genuine." 1 was 27.3% under proof.—Letter of caution sent.

6. Cream of Tartar.

1 sample was taken. It did not comply with the requirements of the British Pharmacopœia, 1898, with regard to acidity and iron compounds (contained 0.5% ferric oxide, and only 93.4% of acid potassium tartrate).—Letter of caution sent.

7 Sweets.

1 sample (informal) of chocolate sweets was taken : it was free from poisonous metals and other harmful ingredients, and from coal-tar colouring matters.

1 other sample of sweets was "genuine."

8. Other Substances.

35 samples, all of which were "genuine," were taken of the following substances :—Lard (10 : 4 informal) ; mustard (6) ; Pepper (6) ; malt vinegar (6) ; ground rice (2) ; cornflour (1) ; cheese (1) ; ground ginger (1) ; cassia (1) ; mace (1).

All the samples of butter, cheese, milk, and margarine were examined for preservatives.

(B) VISITS OF INSPECTION PAID TO PREMISES.

During the year the Inspector of Meat, etc., paid 4,284 visits to premises where the various trades under his supervision were carried on. These visits were paid as follows :—

Butchers' Shops	1,430
American Meat and Fish Shops	2,083
Fried Fish Shops	111
Fish-curing Places	12
Milkshops and Dairies	518
Cowsheds	38
Bakehouses	74
Tallow-boiling Place	—
Triperies	15
Gut-scraping Places	3

The number of such premises existing at the end of the year is as follows :—

Butchers' Shops	74
American Meat Shops	78
Pork Butchers' Shops	22
Fresh Fish Shops	21
Fried Fish Shops	65
Fish-curing Places	6
Milkshops and Dairies	274
Cowsheds	6
Ice Cream Shops	(varies, 30 to 60)

Bakehouses	51
Tallow-boiling Places	2
Triperies	3
Gut-scraping Place	1

(C) PUBLIC ABATTOIR.

The Municipal Abattoir was erected in 1906. In accordance with the provisions of the South Shields Corporation Act, 1896, and the South Shields Extension Order, 1901, no persons can, except with the consent of the Corporation, slaughter in the way of trade any cattle, sheep, horse, or pig, within the Borough, except in the Public Abattoir. This has been in force since November, 1906 ; the Abattoir was opened in October of the same year. As there were no registered slaughterhouses in the Borough, no compensation was paid by the Corporation.

The *Site* covers an area of about one acre.

Direct Access to the Abattoir from the railway is provided by means of a private subway.

The Lairage Building provided for cattle, calves, and sheep is 156 feet long by 23 feet broad, and is divided into seven compartments, three of which are for sheep and four for cattle.

The Main Slaughterhall is 146 feet long by 27 feet broad. The Cooling Hall, *i.e.*, storage for cooling and stiffening, is 107 feet long by 20 feet broad, and will accommodate the carcases of 500 beasts, sheep, and other animals.

Cold Storage is provided in which is installed Linde's refrigerating plant, capable of maintaining a temperature of 35 degrees Fahrenheit.

Accommodation is also provided for *Pig Slaughtering*, and there are *Cooling Halls* in connection therewith, *Tripery, Gut Scraping*, etc.

During 1913, deputations from York and Sheffield inspected the Abattoir.

The following Table gives the numbers of animals slaughterd in the last seven years :—

	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Beasts	5,248	5,157	4,444	4,266	4,221	3,553	3,585
Calves	735	730	564	435	270	290	189
Pigs ..	8,146	8,320	6,465	5,675	7,019	7,525	6,358
Sheep	30,620	33,968	36,450	36,010	36,351	34,318	31,872
Total	44,749	48,175	47,923	46,386	47,861	45,686	42,004

Except for a slight increase in 1913, there has been a continuous decrease in the number of cattle slaughtered at the Abattoir during the past six years.

The number of carcases, etc., condemned at the Abattoir during 1913 will be found in the next paragraph.

(D) FOOD CONDEMNED AND DESTROYED.

The following are particulars of the food condemned and destroyed during the year :—

1. At the Abattoir.

Beasts :	14 Carcases (Tuberculosis).
	3 Quarters (Tuberculosis : 2 Beasts).
	1 Side (Tuberculosis).
	1 Set of Liver and Lungs (Tuberculosis).
	12 Sets of Lungs (11 Tuberculosis ; 1 Ulcers).
	6 Livers (5 Ulcers ; 1 Cirrhosis).
	Kidneys (Dropsy ; 1 Beast).
Calf :	1 Carcase (Tuberculosis).
Sheep :	4 Carcases (2 Dopsy and Emaciation ; 2 found dead).
	5 Livers (Flukes.)

2. Outside the Abattoir.

(Including food-stuffs sent for convenience to the Abattoir to be examined by the Food Inspector).

Beasts :	2 Quarters (Tuberculosis : 1 Beast).
	1 Quarter : Frozen (Decomposition).
	2 cwt. Beef (Decomposition).
Calves :	2 Carcases : Frozen (Decomposition).
	1 Carcase (Decomposition).
Pig :	1 Carcase (found dead).
Tripe :	50 lbs. : Frozen (Decomposition).
Rabbits :	30 : Frozen (Decomposition).
Poultry :	4 Chickens (Decomposition).
	2 Ducklings (Decomposition).
Fish :	24 lbs. Prawns (Unsound).
Fruit :	93 stone Pears (Unsound).

(E) OUTBREAKS OF FOOD POISONING.

A Memorandum was issued by the Local Government Board in September, 1911, dealing with outbreaks of illness, other than cases of the notifiable infectious diseases, which might be suspected to have been caused by the consumption of some article of food. In accordance with the suggestions in the Memorandum, the Medical Officer of Health is authorised by the Council to take such steps as he may consider necessary in any emergency that may arise.

During the past year there were no outbreaks of food poisoning reported within the Borough.

(F) WATER SUPPLY.

A joint Committee, representing the Durham County Council and the County Boroughs of Sunderland and South Shields, was appointed at the end of 1911, and made arrangements for the bacteriological examination by Prof. Hutchens of water from the various reservoirs and wells, samples to be taken monthly from each of the sources of supply.

The final report on these examinations had not been issued at the end of 1913.

SHOPS, FACTORIES, Etc.

(A) INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

The Sanitary Inspectors have paid 630 visits during the year. Written notices were sent out in 22 cases; there were no prosecutions. The details are as follows :—

1. **Factories** (including Factory Laundries).
   Inspections, 28 ; Notices, 10.
2. **Workshops** (including Workshop Laundries).
   Inspections, 349 ; Notices, 11.
3. **Workplaces** (other than Outworkers' Premises).
   Inspections, 253 ; Notices, 1.

(B) DEFECTS FOUND ON INSPECTION.

The defects found are summarised in the following Table :—

Particulars of Defect.	Number of Defects.				Number of Prosecutions.
	Found.	Remedied.	Receiving Attention	Referred to H.M. Inspector.	
*Nuisances under the Public Health Acts** :—					
Want of cleanliness	16	16	..	..	..
Want of ventilation	2	2	..	..	..
Overcrowding	..	..	..	..	..
Want of drainage of floors	6	6	..	..	..
Sanitary accommodation—					
Insufficient	4	4	..	..	..
Unsuitable or defective	11	11		..	..
Not separate for sexes	..	..	..	..	..
Offences under the Factory and Workshop Act :—					
Illegal occupation of underground bakehouse (s. 101)	..	..	..	..	..
Breach of special sanitary requirements for bakehouses (s. 97 to 100)	..	..	..	..	..
Other offences (excluding offences relating to Outwork)	..	..	..	..	..
Total	39	39	..	..	..

* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

(C) REGISTERED WORKSHOPS.

The following 334 workshops were on the Register at the end of the year :—

Making of Wearing Apparel, etc. (Dressmakers, 50 ; Tailors. 25 ; Milliners, 31 ; Boot Repairers, etc., 25 ; Laundries, 9 ; Hosiers, 5).	145
Preparing of Food Stuffs, etc. (Bake-houses, 51 ; Fish Curers, 6 ; Tripe Preparers, 3 ; Salt Packers, 3 ; Pickle Works, 2 ; Beer Bottlers, 2 ; Sweets and Jam Maker, 1 ; Drysalter, 1).	69
Joinery, etc (Joiners, etc. ,30 ; Cabinet Makers and Upholsterers, 11 ; Cartwrights, 6 ; Picture Frame Maker, 1 ; Cooper, 1).	49
Plumbers, etc. (Plumbers, 12 ; Smiths, 10 ; Engineer, 1 ; Ship Repairer, 1 ; Boiler Composition Maker, 1).	25
Watch Repairers, etc. (Watch Repairers, etc., 10 ; Photographers, 5 ; Compass Maker, etc., 1 ; Scale Makers, etc., 3 ; Cycle Repairers, etc., 4 ; Sign Writer, etc., 2 ; Lithographer, 1 ; Printer, 1 ; Wire Worker, 1).	28
Others (Sadlers, 4 ; Sail Makers, 3 ; Umbrella Repairers, 2 ; Sculptors, 2 ; Plasterer, 1 ; Slater, 1 ; Candle Maker, 1 ; Firewood Maker, 1 ; Sail Maker, 1 ; Rag Stores, 2).	18

(D) HOMEWORK.

The number of Outworkers in the Borough is very small.

Two employers each sent two half-yearly lists containing six names (four Outworkers) of persons engaged in the making of wearing apparel.

There were no instances of unwholesome premises (section 108) or on infected premises (sections 109, 110), and there were no prosecutions.

(E) OTHER MATTERS.

The following matters call for report :—

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	4
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) :—	
Notified by H.M. Inspector	22
Reports (of action taken) sent to H.M. Inspector	22
Other	..
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	..
In use at the end of the year	1

(F) SHOPS ACTS.

1. Local Orders.

The following Special Orders are in force locally :—

South Shields Holiday Resort Order (1912), which exempts all shops from the obligation to close on the weekly half-holiday during the months of June, July, August, and September.

Ocean Road Exempted Area Order, Stationers, etc. (1912), which exempts, within the prescribed area, from the obligation to close on the weekly half-holiday the following retail trades, etc. :—Stationers, Picture Postcard Dealers, Fancy Goods Dealers, or Toy Dealers.

Tyne Dock Exempted Area Order, Grocers, etc. (1912), which exempts within the prescribed area from the obligation to close on the weekly half-holiday the following retail trades, etc. :—Grocers, Drapers, Barbers, Boot Dealers, and Ship Store Merchants.

2. Summary of Reports of Shops Inspector, 1913.

Number of Shops on Register as on 31st December	2,480
Number of Shops in which Assistants are employed	1,250
Number of visits paid to Shops by Inspector	8,233
Stalls in Market Place, and Stalls and Cafes on North and South Beach were also visited.	
Interviews and Appointments	294
Complaints received and investigated	47
Infringement of Shops Act reported :—	
No assistants' forms exhibited-Section 1 (2)	197
Not keeping forms in order-Section 1 (2)	27
No weekly half-holiday notices exhibited-Section 4 (3)	61
Non-observance of weekly half-holiday-Section 4(1)	57
Young persons working excessive hours-Section 2(1)	8
Assistants not having proper meal hours-Section 1(3)	17
Assistants employed about the business of the shop on their weekly half-holiday-Section 1(1)	27
Selling non-perishable goods on Closing day-Section 4	9
Total	463
Infringements of Employment of Children Act, 1903, reported :	
Employing errand boys under 14 years of age after 9 p.m.-Section 1(1)	52
Infringements of Public Health Acts Amendment Act, 1890:	
No sanitary convenience for shop assistants-Section 22	8

Cautions and Prosecutions.—All the above cases were reported to the Health Committee. The majority were "first offences." There were no prosecutions during the year ; 139 letters of caution were sent to shopkeepers in connection with various offences.

3, General Survey.

In reporting to me on the work of the past year the Shops Inspector states that there is a marked improvement in the observance of the Shops Acts throughout the Borough. The shopkeepers close more punctually, and greater care is taken to secure that assistants have their weekly half-holiday and meal times in accordance with the requirements of the Acts.

The large shopkeepers in the main streets are almost unanimous in observing Wednesday afternoon as their closing day. However, there is a great tendency amongst the small shopkeepers to change their closing day to suit their customers and their own convenience. In a certain side street containing only four shops, one closes on Monday, another on Tuesday, a third on Wednesday, and the fourth on Thursday.

With regard to the assistants' weekly half-holiday, a difficulty arises in the statutory notices not being kept up-to-date. In many cases the shopkeepers are not altogether responsible for this, as the assistants, especially the female portion, change their weekly half-holiday one with another and unknown to the employer.

In dealing with errand boys under 14 years of age (Employment of Children Act, 1903) tactful dealings are required. A boy, sent a message at 8-30 p.m. say, may take an hour or as far as an hour and a half on a journey requring ordinarily 20 minutes. This excuse has been made by the employer in many cases which have been reported. Regarding street traders under 11 years of age, the parents are in many instances found not to be aware of their children's doings. For example, a lad above the age often gives some of his newspapers to a young boy to help him in the sale ; the mother of the latter being under the belief that her child is at play.

HOUSING.

In the following Report on the Housing Conditions of South Shields, I have dealt with the following matters in the order stated :—

A. The Area of the Borough.
B. The Dwellings in the Borough—Character, Numbers, etc.
C. The Relation of Dwellings to Area.
D. The Inhabitants of the Borough—Number, Occupations, etc.
E. The Comparative Relation of Inhabitants to Area.
F. The Comparative Relation of Inhabitants to Dwellings.
G. Administrative action during 1913.
H. General summary and conclusions.

In each section, definition of the terms used in that section will be found in *italics*. The figures given in the report refer partly to the year of the last Census (1911), and partly to the present year (1914).

(A) THE AREA OF THE BOROUGH.

" Area," for Census purposes, is defined as " land together with inland water " : and excludes foreshore and tidal water.

The total area of the Borough, as above defined, is 2,391 acres. (The *geographical* area includes, in addition to this, the following :—tidal water, 95 acres ; and foreshore down to high water mark, 159 acres.) Of this area, 1,186 acres are occupied by domestic buildings ; and the remainder is largely taken up by railway stations and sidings, docks, works, factories, etc., and by public parks.

The Borough has a peculiar geographical position, being situated on a promontory which is bounded on the East and North-East by the sea, and on the West and North-West by the River Tyne. This fact has an important bearing on the question of its further development ; the general trend of any expansion must of necessity be Southwards in direction.

(B) THE BUILDINGS AND DWELLINGS IN THE BOROUGH.

1. Definitions.

A " Dwelling or Tenement " is defined for Census purposes as a place in which any person entitled to receive a schedule usually lives.

A " House " may include more than one dwelling. That is to say, it may provide separate suites of rooms for several separate families. It is important that this distinction between " dwelling " and the wider and vaguer term " house " should be clearly appreciated.

" *Buildings used as dwellings " include all buildings with sleeping accommodation on the premises.* They are classified as follows :—

(*a*) *Ordinary Dwelling Houses* (as distinguished from flats, etc.), *defined as, generally, all buildings designed for the occupation of a single private family.*

(*b*) " *Flats "—buildings each containing a number of structurally distinct dwellings.* The type common in South Shields and throughout Tyneside, is a two-storied two-dwelling building, one dwelling up and one down, each having its own entrance from the street.

Examples of the type are (1) a block containing two two-roomed dwellings, the lower flat having a lobby, the upper flat a landing at the top of the stairs. (2) A block containing a three-roomed dwelling downstairs, with a scullery and an entrance passage ; and a four-roomed dwelling, with a scullery, upstairs.

This form of flat is seldom met with in other parts of England, except in certain areas around London.

Throughout the country a great variety of different " flats " may be found ; and wide variation in the number of flats in a " block."

(*c*). " *Shops "—with sleeping accommodation, as distinguished from lock-up shops.* Workshops are not included under this heading.

(*d*). " *Hotels, Inns, and Public Houses," with sleeping accommodation.*

(*e*). " *Offices, Warehouses, Workshops, Factories* "—those occupied at night by resident caretakers or managers, etc.

(*f*). " *Institutions "—includes almshouses, hospitals, nursing homes, etc.*

(*g*). " *Other Buildings "—includes clubs, theatres, public buildings, etc., with resident caretakers.*

(*h*). " *Uninhabited Dwellings "—includes all those dwellings in which no one passed the night of the Census.*

" *A Room "—each ordinary room in a house, including the kitchen, is counted as a room ; but sculleries, landings, lobbies, closets, bathrooms, warehouses, offices, and shops, are not so counted.*

No complete statistics are available regarding the *size* of the rooms provided in different localities. This fact must be borne in mind in comparing conditions in different areas. The variations in size of rooms in working-class dwellings in different parts of England are, however, on the whole, not great. On the other hand, rooms in working-class dwellings in Scotland are, on the average, about 37 per cent. larger than those in England.

2. General Survey of the Buildings in South Shields at the time of the last Census.

The following is a classification of the buildings within the Borough in 1911, as prepared from the Census returns.

(*a*). Buildings used as Dwellings.

	Number In-habited.	*Number Unin-habited.*	*Number being built.*
Ordinary Dwelling Houses......	5,048	229	22
Blocks of Flats *..............	7,849	51	23
Shops	677	68	3
Hotels, Inns, and Public Houses	125	6	..
Offices, Warehouses, Workshops, and Factories	14	1	1
Institutions	34	3	..
Other Buildings	21	1	2
Vessels	87	..	..
Tents	1	..	..
Total, 1911	13,856	359	51
Corresponding Total, 1901	12,465	853	109
*(*No. of " dwellings " in these flats*	*15,189*	*564*	*44*)

(*b*). Buildings not used as Dwellings :—

Places of Worship	64
Government and Municipal Buildings............	20
Shops	1,321
Offices	97
Warehouses, Workshops, Factories	323
Theatres and other places of Amusement..........	7

It will be seen from the above that, at the time of the 1911 Census, there were 51 " houses " *in course of erection*, as compared with 109 at the time of the 1901 Census. There are several factors —such as fluctuations in price of materials, etc.—which operate to make a comparison between two isolated dates difficult. But it may be stated generally that, throughout the country, the proportion of houses being built in 1911 was very much less than it had been at any previous Census.

Again, the number of uninhabited " houses " was 359 in 1911, as compared with 853 in 1901. A similar drop in the proportion of vacant houses was observable throughout the country. (Since 1911, the number of vacant houses in South Shields has further decreased to a remarkable extent—See p. 51).

Before passing from this subject, the following figures may be given :—

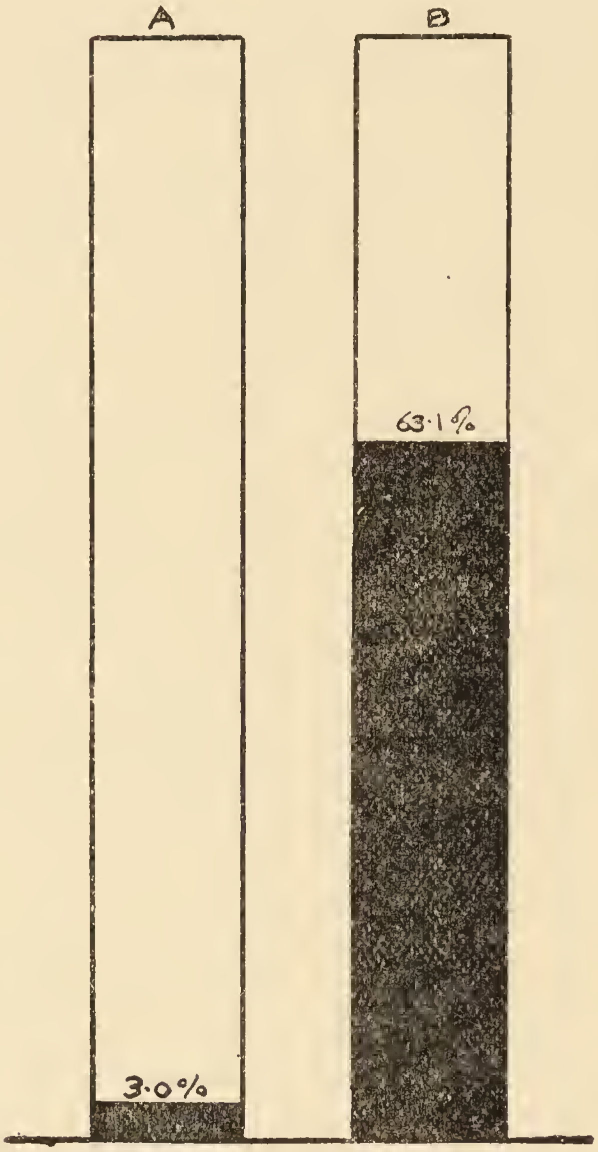
	All England and Wales.	*Total of County Boroughs.*	*South Shields.*
Increase *per cent.* of inhabited houses, 1901-1911	14.1	12.0	10.5
No. of uninhabited houses per 1,000 inhabited houses, 1911	57.2	58.7	26.1
No. of houses being built, per 1,000 inhabited houses, 1911	5.3	3.9	3.7

3. "Flats" and "Ordinary Dwellings."

The distinction between the term "house"—which may mean a block of flats—and "dwelling"—which may be taken as the family-unit—is shown in the following table, which gives the total number of blocks of flats and of ordinary dwelling-houses (inhabited and uninhabited) as in 1911 :—

	"Houses."	"Dwellings" or Tenements.
Ordinary Dwelling Houses ..	5,277	5,277
Blocks of Flats	7,900	15,753
Total	13,177	21,030*

* This total does not include shops, etc., used as dwellings.



PERCENTAGE OF TOTAL POPULATION
LIVING IN "FLATS"
(BLACK)

A = TOTAL OF THE 75 COUNTY BOROUGHS
B = SOUTH SHIELDS

D.M.M
1914

The very high proportion of dwellings of the "flat" type in South Shields, as compared with the County generally, is shown in the next table, where the percentage of the total population living in flats, as compared with ordinary dwelling houses, is set out :—

	Percentage of total population living in	
	Ordinary Dwelling Houses.	Flats.
England and Wales	86.6	2.9
Total of all Urban Districts (inclusive of London and the County Boroughs)	85.2	3.7
Total of all Urban Districts (exclusive of London and the County Boroughs)	87.5	1.8
Total of Rural Districts	91.4	0.3
Total of County Boroughs	86.6	3.0
London	75.6	10.4
South Shields	**31.3**	**63.1**

4. Rents of Working-Class Dwellings.

The predominant rents of working-class dwellings in South Shields at the present time are as follows :—

	s.	d.		s.	d.	
Two-Room Dwellings	3	6	to	4	6	per week.
Three-Room Dwellings	4	9	,,	6	0	do.
Four-Room Dwellings	5	0	,,	7	0	do.

These figures *include* rates.

5. Increase in Rents.

During the seven-year period, 1905-1912, there was some increase in the average rentals, as shown in the following comparison :—

	1905.					1912.				
	s.	d.		s.	d.	s.	d.		s.	d.
Two-Room Dwellings ..	3	6	to	4	3	3	6	to	4	3
Three-Room Dwellings	4	3	,,	5	9	4	9	,,	5	9
Four-Room Dwellings ..	5	3	,,	6	6	5	0	,,	6	9

The change, over all, corresponds to an increase of 2 per cent. for the period quoted. Some towns in the country showed a much more marked increase in this period. Thus, Newcastle rents increased 5 per cent. ; Sunderland, 8 per cent. ; Preston, 10 per cent. ; Macclesfield, 15 per cent. ; and Coventry, 18 per cent. On the other hand, in several industrial towns a decrease in rentals was observable ; as for example, Middlesbrough, 1 per cent. ; Darlington, Stockton and Gateshead, 2 per cent. ; Nottingham, 4 per cent. ; Gloucester 6 per cent. ; and Burton-on-Trent, 10 per cent.

During the period 1912-1914 there has been a further considerable rise in South Shields rentals. The rise has not been a general one throughout the town, but a large number of properties have been affected.

6. Rentals of Working-Class Dwellings in Industrial Towns.

A comparison of the predominant rents of working-class dwellings in the industrial towns of the country, as revealed in Board of Trade returns, affords an interesting study. At the time of the last enquiry the level of rents was as shown in the following table. The middle "zone" of London—between the central area and the outlying districts—has been taken as a standard, and entered as 100 ; and other towns are arranged in order :—

London (middle zone)	100
Newcastle-upon-Tyne	84
Croydon, Plymouth, Devonport	81
Swansea	76
Dublin	75
Birkenhead	73
Jarrow	72
South Shields, Edinburgh & Leith, Greenock, Huddersfield, Southampton	70
Gateshead	68
Glasgow, Dundee, Sheerness	67
Sunderland, Cardiff, Luton	66
Barrow-in-Furness, Liverpool	65
Manchester & Salford, Newport	64
Bradford, Oldham Kilmarnock	62
Birmingham, Middlesbrough, Portsmouth, Aberdeen, Falkirk, Paisley	61
Bolton, Coventry, Grimsby, Normanton, St. Helens	60
Darlington, Carlisle, Keighley	59
Dover, Leeds, Swindon	58
Bristol, Chatham, Gillingham, Reading, Sheffield, Limerick	57
Blackburn, Halifax, Lincoln, Stoke-on-Trent, Wigan	56
Burnley, Nottingham, York, Rochdale, *Stockton-on-Tees*, Perth	55
Castleford, Hull, Preston	54
Merthyr Tydfil, Northampton, Wolverhampton, Worcester	53
Norwich, Chester, Derby, Leicester, Stockport	52
Bedford, Warrington	51
Cork	50
Crewe	49
Burton-on-Trent	48
Gloucester, Ipswich, Taunton	47
Belfast, Galashiels	46
Walsall	43
Kidderminster, Peterborough, Waterford	42
Londonderry	40
Macclesfield	38

It will be seen from the above that working-class rents in London are much higher than in any other town in the country; and that Newcastle is the town whose rents most closely approach to the London figure. Of Durham towns, Jarrow, South Shields, Gateshead, and Sunderland all occupy high positions in the list; Darlington and Stockton-on-Tees being lower, with rentals equal to 59 per cent. and 55 per cent. of those of London.

A comparison of mean rentals for the provincial industrial towns generally, and for South Shields, gives the following results:—

	Average of Provincial Industrial Towns.	South Shields.
	s. d.	s. d.
Two-Room Dwellings	3 1½	3 10½
Three-Room Dwellings	4 4½	5 3
Four-Room Dwellings	5 1½	5 10½

It has to be observed in relation to the above that the rates of wages paid in many of the principal trades—building, etc.—are, on the whole, distinctly higher in South Shields than the average wages paid in other industrial towns.

7. Classification of South Shields Dwellings on basis of Rental.

In the table printed below the habitable dwellings in the Borough at the date of the issue of this Report (April, 1914) are classified on the basis of annual rental.

The rents given are in all cases *rents alone* : and not rents and rates ("compounded rentals").

Dwellings with a rateable value of—

£8 and under (Poor Rate basis),
£10 and under (General District Rate basis),

are "compoundable." That is, the landlord may undertake in the case of such dwellings to collect from the tenant and pay over the rates ; and to pay such rates whether the houses are occupied or not. In respect of this latter risk, and of the service rendered in collecting the rates, he is allowed a *deduction* off the rates, to the extent of 30 per cent. (Poor Rate) and 33⅓ per cent. (District Rate).

In addition to this, the rates in respect of the majority of dwellings with a rateable value of £8 to £12 (Poor Rate basis) are, as a matter of fact, paid through the landlord. But in these cases no deduction is allowed, and rates are not paid on unoccupied property.

Districts	Wards	Habitable Dwellings, South Shields. April, 1914.									
		Annual Rental.									Total in each Ward.
		Under £5.	£5 and under £10.	£10 and under £15.	£15 and under £20.	£20 and not over £26.	Over £26 and under £30.	£30 and under £40.	£40 and under £50.	£50 and upwards.	
North	Shields	**749**	591	80	15	3	2	9	5	26	1480
	Beacon	51	**1144**	370	149	79	39	55	21	8	1916
	St. Hilda ..	249	**699**	78	77	27	1	11	8	31	1181
	Hadrian ..	68	**914**	445	183	124	52	55	16	24	1881
West	Holborn ..	517	**701**	95	24	17	5	8	5	20	1392
	Laygate ..	317	**1164**	48	21	9	9	20	12	23	1623
	Rekendyke	47	**1298**	310	59	27	10	13	8	17	1789
	Deans	3	**1502**	765	48	29	5	5	..	2	2359
East	Victoria....	9	**1535**	375	109	55	32	37	7	15	2174
	Bents......	..	179	**882**	286	175	47	44	42	25	1680
	Westoe	..	252	**993**	212	281	163	66	21	54	2042
South	Tyne Dock	163	**1145**	644	80	29	3	9	8	13	2094
	Simonside	40	**1042**	468	62	40	3	10	3	7	1675
	West Park	..	395	**1282**	138	129	29	29	2	7	2011
	Totals ..	2213	**12561**	6835	1463	1024	400	371	158	272	25297

An examination of the table will reveal many interesting facts.

(*a*) For example—

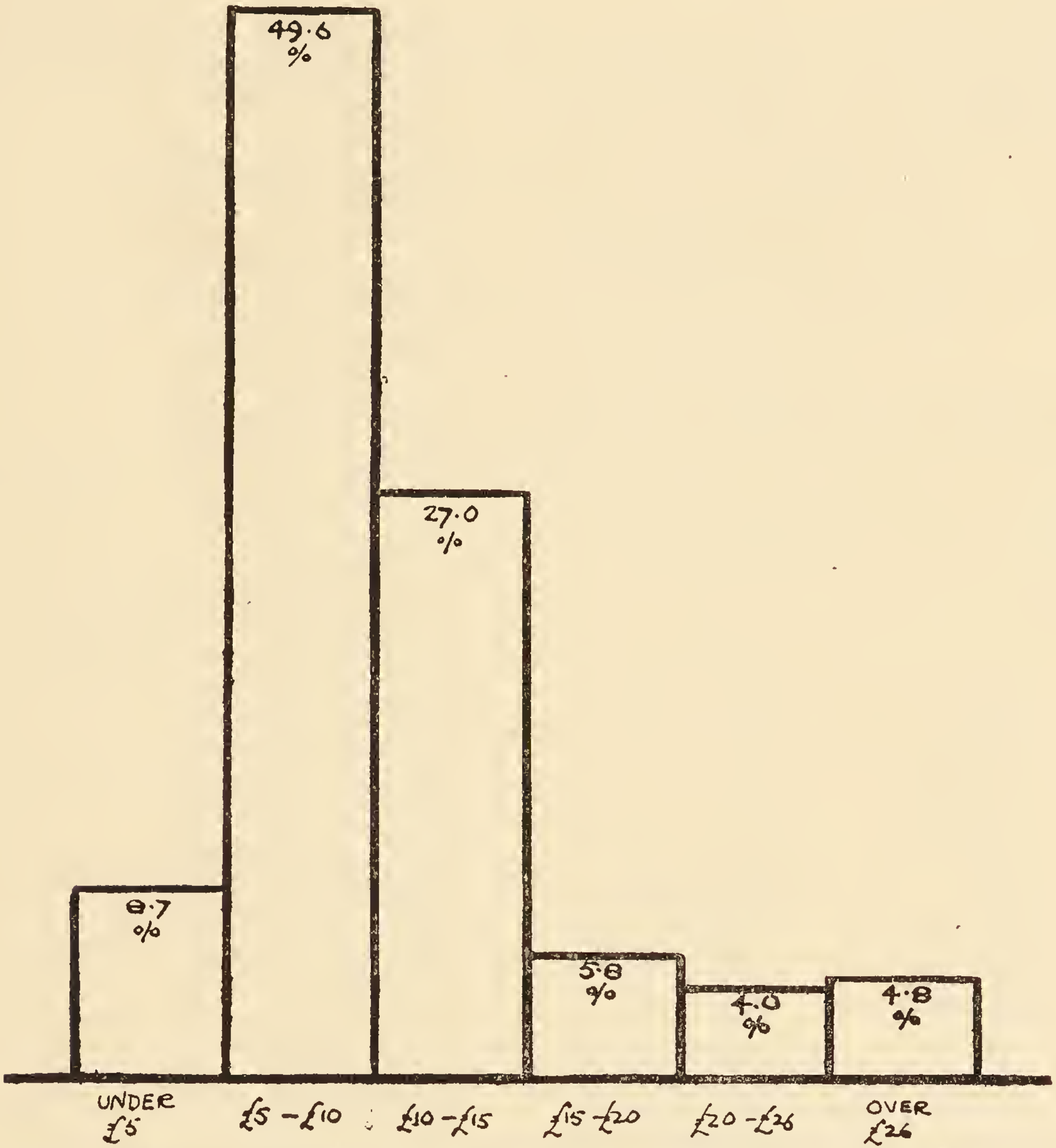
8.7	per cent. of the dwellings are rented at	under £5.
49.6	„ „ „	£5 and under £10.
27.0	„ „ „	£10 and under £15.
5.8	„ „ „	£15 and under £20.
4.0	„ „ „	£20 and not over £26
1.6	„ „ „	over £26 & under £30
1.5	„ „ „	£30 and under £40.
0.6	„ „ „	£40 and under £50.
1.1	„ „ „	£50 and upwards.

(*b*). Thus, 95 per cent. of the dwellings in the Borough are within the limit of rent applicable under Section 14 of the Housing, Town Planning, etc., Act, 1909. The portion of this section relevant to South Shields provides that "In any contract made after the passing of this Act for letting for habitation a house or part of a house at a rent not exceeding twenty-six pounds . . . there shall be implied a condition that the house is, at the commencement of the holding, in all respects reasonably fit for human habitation ." The following Section (Section 15) provides that "The last foregoing Section shall, as respects contracts to which that condition applies, take effect as if the condition implied by that Section included an undertaking that the house shall, during the holding, be kept by the landlord in all respects reasonably fit for human habitation."

(*c*). In one Ward (Shields) dwellings with an annual rental of under £5 constitute the largest group.

In three Wards (Bents, Westoe, and West Park) dwellings with a rental of £10 and under £15 form the largest group.

In the remaining ten Wards, the £5 to £10 dwelling is the standard type.



ALL HABITABLE DWELLINGS IN SOUTH SHIELDS : SHOWING PERCENTAGES AT DIFFERENT RENTALS

D.M.M
1914

8. Unoccupied dwellings at the present time.

After careful investigation, it has been possible to discover, among the 25,297 dwellings in the Borough, only 11 which are unoccupied and "to let" at the present time. The rentals of these unoccupied dwellings are as follows :—

Under £5	2
£5 and under £10.....................	0
£10 and under £15	0
£15 and not over £26	1
Over £26	8

The knowledge of this scarcity of dwellings, and of the hardship to evicted tenants which would be entailed should the available accommodation be diminished by the compulsory closure of existing dwellings, has necessarily hampered the activities of the health authority in dealing with insanitary property.

Advertisements inserted by persons in search of working-class dwellings are frequently to be seen in the local papers. The following are taken from a recent issue :—

> TENANT, in a Three-roomed Flat, near Docks, would EXCHANGE for similar Flat, neighbourhood Westoe Road.

> PREMIUM PAID TO INFORMER. WANTED, SMALL FLAT to rent, immediately.

9. Classification of Dwellings as One-roomed, Two-roomed, etc.

(*a*). We come now to the consideration of the accommodation provided in the various dwellings in the Borough. This may be briefly set out as follows :—

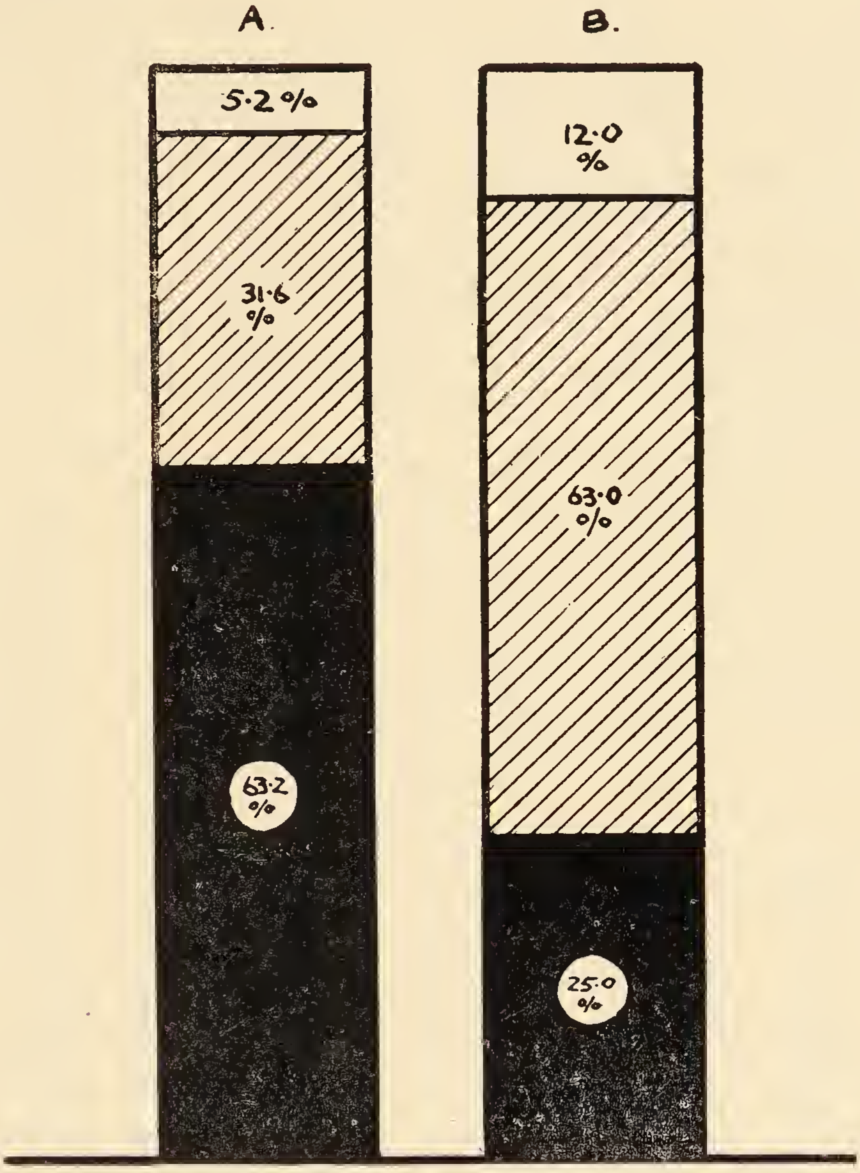
	Percentage of Total Dwellings.	
One room dwellings	6.9	63.2
Two ,,	32.5	
Three ,,	23.8	
Four ,,	19.9	31.6
Five ,,	6.9	
Six ,,	4.8	
Seven ,,	2.4	5.2
Eight ,,	1.4	
Nine ,,	.7	
Dwellings of ten or more rooms	.7	

It will be seen from this statement that over 63 per cent. of all the dwellings in the Borough are of 3 rooms or less.

Also that the commonest type of dwelling is the two-roomed tenement (32.5 per cent.)

(*b*). The way in which South Shields compares in this respect with the other County Boroughs of England and Wales is shown below :—

	Percentage of Total Dwellings.			
	South Shields.		*Total of 75 County Boroughs.*	
One room dwellings	6.9	63.2	2.7	25.0
Two ,,	32.5		7.9	
Three ,,	23.8		14.4	
Four ,,	19.9	31.6	26.5	63.0
Five ,,	6.9		21.4	
Six ,,	4.8		15.1	
Seven ,,	2.4	5.2	5.3	12.0
Eight ,,	1.4		2.9	
Nine ,,	.7		1.5	
Dwellings of ten rooms and over	.7		2.3	



DWELLINGS IN SOUTH SHIELDS (A) AND IN THE 75 COUNTY BOROUGHS OF ENGLAND AND WALES (B) SHOWING PERCENTAGES OF DWELLINGS OF DIFFERENT ACCOMMODATION.

BLACK = DWELLINGS OF 1, 2, OR 3 ROOMS
SHADED = " " 4, 5, OR 6 "
WHITE = " " 7 ROOMS OR OVER.

(c). The relative prevalence of the small dwelling of three rooms and less varies in different districts. South Shields, however, takes first place among the 75 County Boroughs of the country, with its total of 63.2 per cent. It is followed closely by Sunderland with 62.0 per cent. Devonport comes next with 61.1 per cent.; and then follow Plymouth, Gateshead, Newcastle-on-Tyne, Tynemouth, and Huddersfield, all of which are over 50 per cent.

A consideration of the conditions prevailing elsewhere affords useful comparisons:—

	Percentage of total dwellings which have 3 rooms or less
All England and Wales	25.4
London	54.1
Total of County Boroughs	25.0
Total of Rural Districts	19.1
Northumberland (Administrative County with *highest* proportion)	55.9
Peterborough (Administrative County with *lowest* proportion)	7.4
Durham County :—	
Administrative County (second highest in country)	50.6
Total of Urban Districts	50.1
Total of Rural Districts	51.3
County Boroughs : Gateshead	59.5
South Shields	**63.2**
Sunderland	62.0
West Hartlepool	37.9
Boroughs : Darlington	35.5
Stockton-on-Tees	17.5

(C) RELATION OF DWELLINGS TO AREA.

(*a*). The number of habitable dwellings per acre in the Borough, and in the various Wards, at the present time, is as follows —

District.	Ward.	No. of Dwellings.	Acreage.	Dwellings per acre.
North	Shields	1,480	107.2	13.8
	Beacon	1,916	184.1	10.4
	St. Hilda	1,181	101.2	11.7
	Hadrian	1,881	135.9	13.8
West	Holborn	1,392	141.1	9.9
	Laygate	1,623	34.6	46.9
	Rekendyke	1,789	47.4	37.7
	Deans	2,359	62.5	37.7
East	Victoria	2,174	78.2	27.8
	Bents	1,680	321.6	5.2
	Westoe	2,042	318.6	6.4
South	Tyne Dock	2,094	493.1	4.2
	Simonside	1,675	274.2	6.1
	West Park	2,011	345.2	5.8
	Borough	25,297	2644.9	9.6

(*b*). The number of dwellings to the acre in the whole Borough, as calculated on this basis, is 9.6. But if instead of taking the total geographical area (which includes land occupied by railway stations and sidings, factories, etc., as well as foreshore, tidal water, and inland water, and a portion of the River Tyne) the area occupied by domestic buildings and the adjoining streets and back streets is taken, the number of dwellings per acre is found to be **21.3.**

(*c*). In discussing the density of dwellings in the different Wards, it has to be remembered that many of the Wards include within their acreage as given above a considerable area not occupied by domestic buildings. The nature of these areas is as follows :—

Shields—Part of River Tyne, large area of river frontage, partly occupied by works ; large ballast hill near South Shields Station ; old brickfield near Palatine Street ; part of Market Place.

Beacon—Part of River Tyne ; river frontage with riverside works ; Roman Remains Park ; St. Stephen's Churchyard ; North Marine Park ; large area of " Sands."

St. Hilda—Part of River Tyne ; river frontage with staithes ; large area occupied by Colliery and Gas Works ; Goods Station Yard ; St. Hilda's Churchyard ; part of Market Place.

Hadrian—South Marine Park, "Sands," etc.

Holborn—Part of River Tyne ; river frontage with docks, etc. ; Trinity Churchyard, etc.

Laygate, Rekendyke, and Deans—Practically entirely occupied by domestic buildings and shops ; with the exception of the Isolation Hospital in Deans Ward.

Victoria—Corporation Yard ; parts of Imeary Street and Wawn Street.

Bents—Bents Park and adjacent ground ; " Sands," etc. ; Westoe Cemetery and land to south and east ; Ogle Terrace field.

Westoe—Grounds of Ingham Infirmary, High School, St. Michael's Vicarage ; Harton Cemetery ; Cricket Field ; and land in south and east.

Tyne Dock—Part of River Tyne ; " Tyne Dock " ; large area occupied by wharves, railways, etc.

Simonside—" Simonside," railway sidings ; Colliery Yard, etc.

West Park—The West Park ; land S.E. of Stanhope Road ; Car Sheds, and neighbouring allotments.

The Wards which approach most nearly to purely " domestic building " areas are Laygate, Rekendyke, Deans, and Victoria ; in these Wards the density of habitable dwellings reaches the very high figure of 46.9, 37.7, 37.7, and 27.8 respectively.

(*d*). The private area per dwelling is even less than might, to anyone unacquainted with local conditions, appear from the figures given. For the area per dwelling includes not only part of a public front street, the minimum width of which is fixed by Byelaw, but also part of a public back lane, which is similarly prescribed. The back-lane monopolises area which might under a different system be devoted to increasing private yard or garden space.

(D) INHABITANTS OF THE BOROUGH.

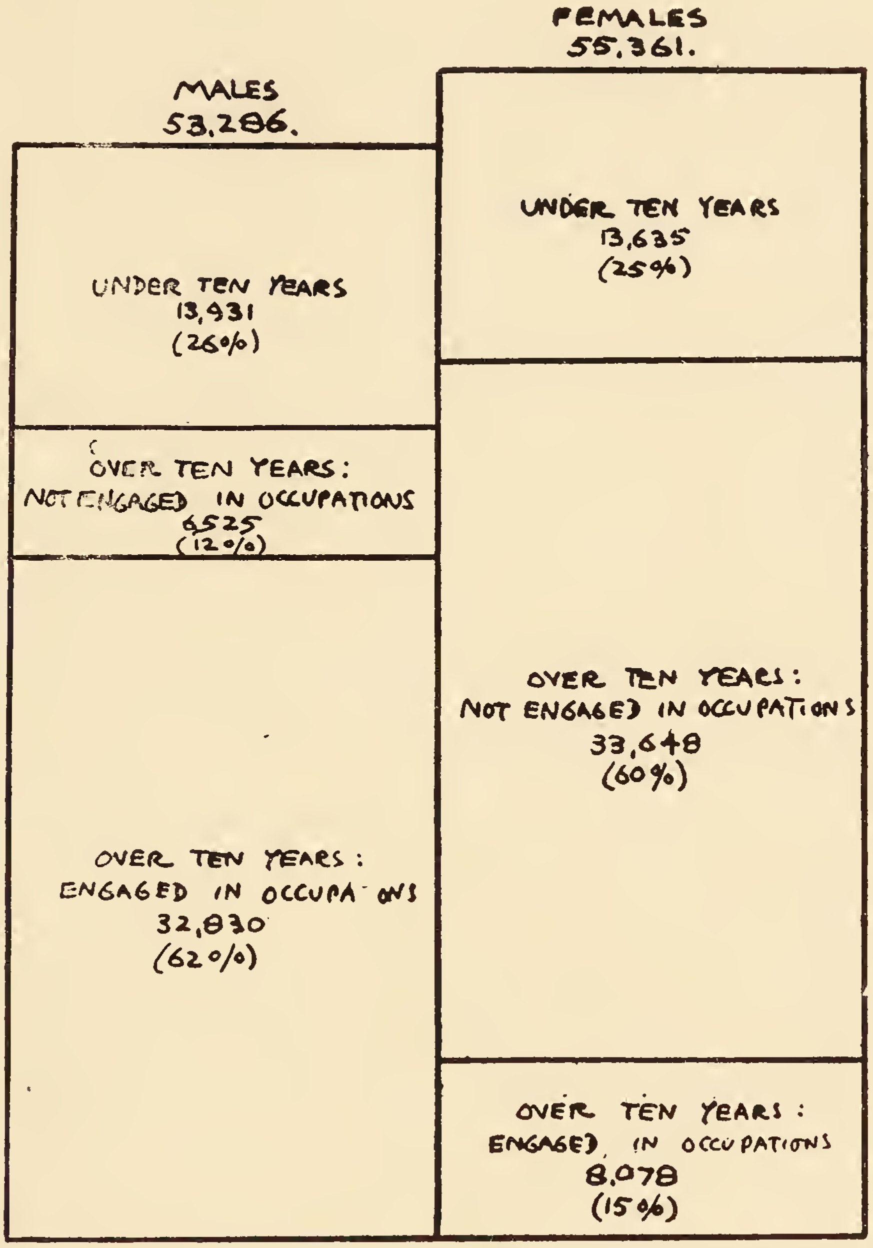
In order adequately to study the requirements of the Borough as regards housing it will be necessary here to examine in some detail the question of population, occupations of residents, etc.

1. Definition.

" *A family* " *is considered to be all the persons enumerated on a given Census-schedule* ; *and includes lodgers, visitors, servants, etc.*

2. Occupations of Residents.

The population of South Shields is in a very large measure an industrial one ; the working-class population bearing a comparatively high numerical ratio to the total population of the Borough. This fact is reflected in the nature of the housing accommodation provided ; the amount of what is known as " residential " property being comparatively small. It is noteworthy, however, that so far there appears to be little demand for better class dwellings even among those whose incomes would put such dwellings within their reach ; many families, where the combined income is relatively large, being content to inhabit houses with restricted accommodation and few amenities.



POPULATION OF SOUTH SHIELDS AT THE TIME OF THE CENSUS. SHOWING PERCENTAGES ENGAGED IN OCCUPATIONS, ETC.

D.M.M
1914.

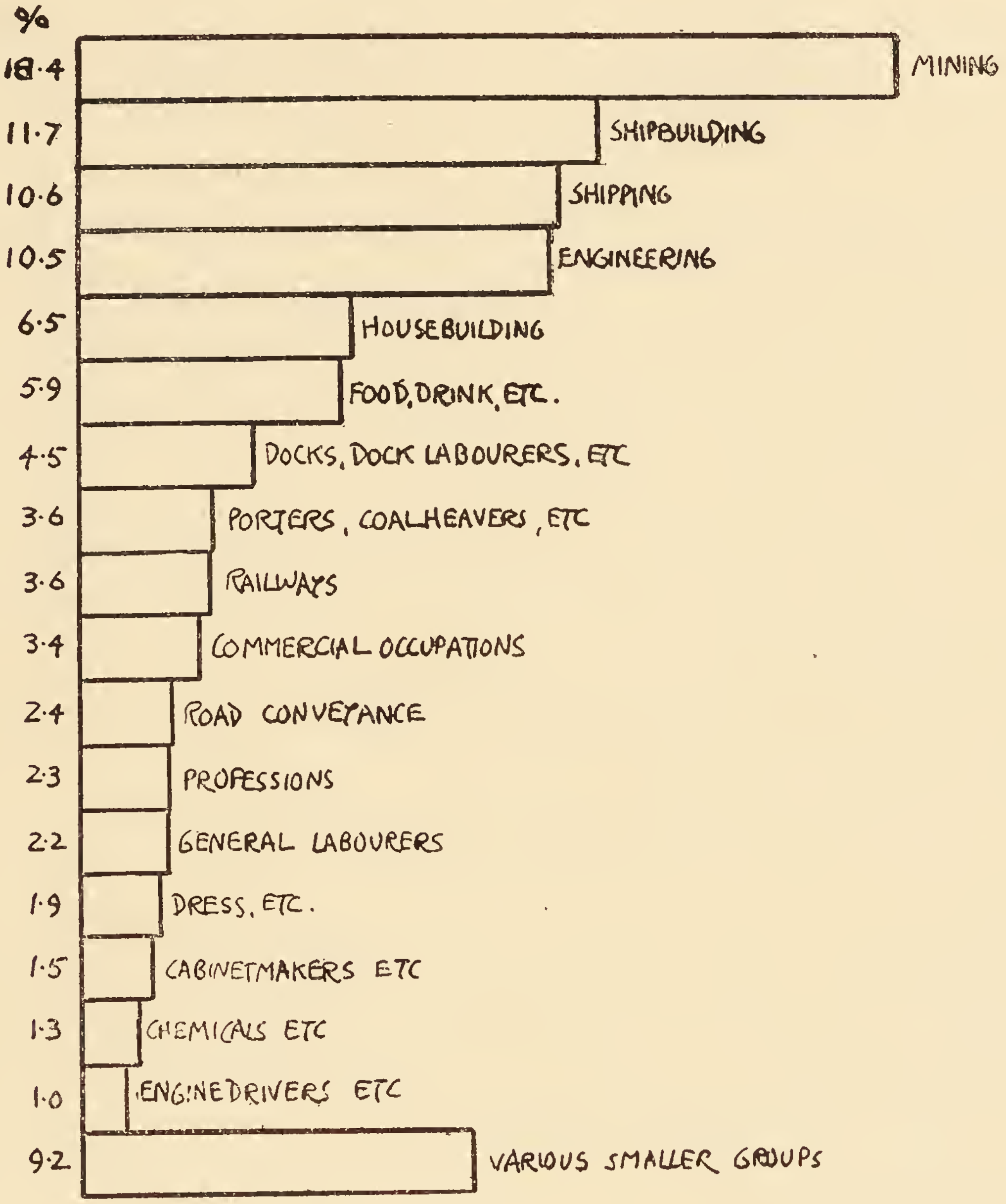
At the time of the Census, there were 53,286 males registered as resident in the Borough. Of these 13,931 were under ten years of age ; and 6,525 of the remainder were unoccupied, or without specified occupations (chiefly scholars of ten years and upwards ; students ; pensioners, etc).

There were thus 32,830 males engaged in occupations.

The chief groups of these occupations were as follows :—

1.	*Mines, etc.* : Males employed in and about, and working and dealing in the products of, mines and quarries....	6,071
2.	*Shipbuilding, etc.* : Employed as ship platers, rivetters, painters, etc., etc.	3,850
3.	*Shipping, etc.* : Employed in merchant service, etc., pilots, boatmen, watermen, etc.	3,458
4.	*General Engineering* : Ironfounders, blacksmith strikers, boilermakers, fitters, labourers, etc.	3,431
5.	*Housebuilding, etc.* : Builders, builders' labourers, carpenters, bricklayers, masons, painters, plumbers, etc.	1,975
6.	*Food, Drink, etc.* : Bakers, butchers, grocers, etc., hotel keepers, waiters, barmen, etc., tobacconists	1,843
7.	*Docks, etc.* : Dock labourers, etc.	1,473
8.	*Porters, etc.* : Coalheavers, coal porters, managers, etc.	1,185
9.	*Railways* : Officials, clerks, drivers, platelayers, etc. ..	1,182
10.	*Commercial Occupations* : Merchants, agents, accountants, insurance, business clerks, etc.	1,117
11.	*Road Conveyance* : Cabmen, carmen, vanmen, carters, etc.	773
12.	*Professions* : Clergymen, engineers, physicians, solicitors, teachers, law clerks, etc.	768
13.	*General Labourers*	756
14.	*Dress* : Tailors, bootmakers, etc.	628
15.	*Cabinet Makers, etc.* : Upholsterers, French Polishers, etc.	501
16.	*Chemicals, etc.* : Chemists, rubber workers, etc.	433
17.	*Engine Drivers, etc.* : Drivers, stokers, etc. (not railway)	331
18.	*Various small groups*	3,055
		32,830

The staple male industries may be shown graphically as follows :



OCCUPIED MALES : SHOWING PERCENTAGES ENGAGED IN VARIOUS GROUPS OF OCCUPATIONS.

D.M.M.
1914.

It will be seen that work in connection with shipbuilding, ship-repairing, etc., is easily the largest labour employing industry in the Borough ; and that coal-mining takes second place.

The rates of wages paid in certain occupations, recorded in the last Board of Trade returns—as at October, 1913—are as follows :—

Engineering :	Fitters, Turners and Brass-finishers	37/-	per week.
	Turners (Shipyards)	40/-	,,
	Patternmakers	40/-	,,
	Smiths	38/6	,,

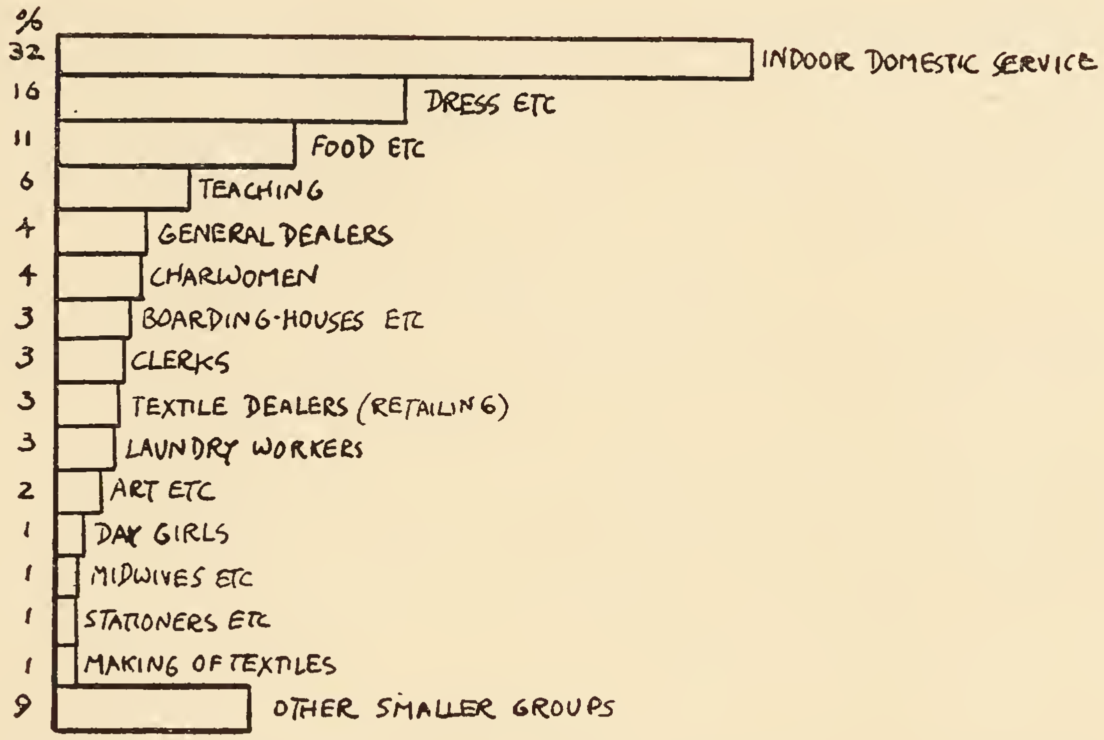
Building :	Bricklayers and Plasterers ..	10d.	per hour.
	Carpenters and Joiners	10d.	,,
	Masons	10d.	,,
	Plumbers	9d.	,,
	Painters	9d.	,,
	Labourers	6¾d.	,,

Turning to the question of the occupation of women, the most important fact to record is that the proportion of women who are engaged in industrial pursuits is comparatively small as compared with other parts of the country. (A high proportion of female employment in works, etc., is one of the great factors in the production of high infant mortality rates).

Of the 55,361 females registered in the Borough at the Census, 13,635 were under ten years of age. Of the remaining 41,726, only 8,078 or 19.4 per cent. were engaged in occupations other than private household work.

The occupations of these 8,078 may be grouped as follows :—

1.	*Indoor Domestic Service*	2,604
2.	*Dress, etc.* : Milliners, Tailors, Shoemaker Shops, etc.....	1,258
3.	*Food* : Bakers, Grocers, Dairies, etc.	910
4.	*Teaching*	466
5.	*General Dealers* : (Small shops, Pawnshops, etc.)	326
6.	*Charwomen*	316
7.	*Boarding Houses, etc.* : Keepers of Boarding Houses, Lodging Houses, Hotels, etc.......................	282
8.	*Commercial and Business Clerks*	242
9.	*Textile Dealers* : Drapers, etc.	234
10.	*Laundry Workers*.................................	203
11.	*Art, etc.*: Theatres, Photographers' Shops, Music Shops, etc.	150
12.	*Day Girls*	102
13.	*Midwives, Sick Nurses, etc*.........................	93
14.	*Stationers, Printers, etc.*	89
15.	*Textile Manufacturers*..............................	80
16.	Others	723
		8,078



OCCUPIED FEMALES : SHOWING PERCENTAGES ENGAGED IN VARIOUS GROUPS OF OCCUPATIONS.

D.M.M
1914

3. Size of Present Population.

The present population of the Borough (April, 1914) is 111,200, as estimated in the usual way—namely, on the assumption that the population has increased since 1911 (the last Census) in the same ratio as the increase during the last intercensal period (1901-1911).

This corresponds to an increase of 2,553 (or 23 per 1,000) since 1911.

There are reasons, however, for believing that this estimate is short of the truth.

The two factors producing variation in the total population of a district are—

(1). The relative number of births and deaths.

(2). The relative amount of immigration and emigration.

The increase during the intercensal period was produced by a certain balance of the factors of births and deaths, immigration and emigration, and the estimate given above for the present year is made on the assumption that this balance has not been disturbed.

But during the past two years the amount of emigration has greatly diminished, and at the same time the amount of immigration has increased.

A period of trade prosperity and activity, such as that which Tyneside has experienced recently, necessarily entails a considerable influx of workers, together with (in a proportion of cases) their wives and families. The result is an expansion of the population outside the figure arrived at by ordinary methods of calculation.

If we now proceed to examine the other factors—births and deaths—we find that during the past three years the totals registered have been as follows :–

10,096 births.
5,653 deaths.

giving an excess of births over deaths (" natural increase of population ") of 4,443.

It may reasonably be assumed that since the time of the census emigration has at least not been in excess of immigration.

If, therefore, we take this figure 4,443, as being an indication of the *actual increase*, we have for an estimated population the total of 113,100 ; corresponding to an increase during the past three years of 41 per 1,000.

An examination of the return of children on the registers of the elementary schools in the Borough shows that here there has been an increase from 21,189 in 1911, to 22,093 in 1914 ; a total of 904, or *43 per 1,000.* (A slight increase in the average attendance of children under 5 years took place during this period; this, however, accounted for an increase of only 2 to 3 per 1,000).

Approaching the estimate from another standpoint, the number of inhabited dwellings (ordinary dwelling-houses, flats, shops, inns, and offices, etc.) in 1911, was 21,053 ; the population was 108,647 ; the average number of persons per dwelling was therefore 5.1. If this degree of population-density per dwelling were the same at the present time, when the number of occupied dwellings is 25,286 (see pp. 49 and 51) the population would be 129,000. But an invariable effect of the prevalence of prosperous trade conditions is that the average number of persons per dwelling tends to be diminished; increased wage-earning conditions among those families already resident in the town are followed by a splitting-up of composite families—married sons and daughters who, under less prosperous conditions, are content to share a dwelling with their parents, exhibiting a healthy desire to have a house of their own ; and the temptation to sub-let part of the dwelling to lodgers is removed.

After a full consideration I have arrived at the conclusion that the population of the Borough at the present time is at least 114,000.

4. Increase of Population during the Intercensal Period.

During the intercensal period 1901-1911 the population of South Shields increased from 97,800 to 108,647—an increase of 7.7 per cent.

The increases for the country generally, and for other areas, were as follows —

England and Wales	10.9
Durham County : Total	15.4
Total of Urban Districts	11.2
Total of Rural Districts	26.9
Northumberland County	15.5
Aggregate of 21 Industrial Counties	11.8
Aggregate of 23 Agricultural Counties	6.2
Durham County Boroughs—	
West Hartlepool	2.1
Sunderland	3.5
Gateshead	6.4
South Shields	7.7
Newcastle	7.9

5. Size of Families.

The proportion of families of various sizes in South Shields is shown in the following table —

	Percentage of Total Families.	
One person per family	5.2	39.3
Two persons ,,	15.4	
Three ,, ,,	18.7	
Four ,, ,,	17.7	42.7
Five ,, ,,	14.0	
Six ,, ,,	11.0	
Seven ,, ,,	7.6	18.0
Eight ,, ,,	5.0	
Nine ,, ,,	2.9	
Ten ,, ,,	1.5	
Eleven ,, ,,	.6	
Twelve or more persons per family	.4	

It will be noted that the commonest size of family was that of three persons (this does not mean that the *average* family consisted of three persons; for averages see p. 64), and that while 39.3 per cent. of the families consisted of three persons or less, 42.7 per cent. had four to six, and 18.0 per cent. seven or more.

The following gives comparative information —

	Families of 1, 2, or 3.	Families of 4, 5, or 6.	Families of 7 or more.
	per cent.	per cent.	per cent.
All England and Wales	40.9	42.9	16.2
London	45.9	38.6	15.5
Total of the County Boroughs	**39.2**	**44.0**	**16.8**
Total of Urban Districts (exclusive of London and the County Boroughs)	39.5	44.2	16.3
Total of Rural Districts	42.1	41.8	16.1
Durham County (Administrative)	32.0	45.4	22.6
South Shields	**39.3**	**42.7**	**18.0**

It will be seen that the South Shields figures correspond fairly closely to those of the County Boroughs generally ; the proportion of families of seven or more being somewhat higher.

The Census returns show that the highest percentage of large families is to be found among the mining and industrial counties, where the birth-rates are high ; the lowest percentage being among the agricultural counties.

It is noteworthy that the highest percentages of *small dwellings* are also to be found in the mining and industrial counties. The combination of these two factors—*large families and small dwellings closely packed together*—goes far to account, directly and indirectly, for the *high death-rates and high infant mortality rates* so consistently met with in mining and industrial areas.

6. Average Number of Persons per Family.

The average number of persons per family, among those resident in South Shields in " ordinary dwellings "—which term does not include " flats "—was 4.35.

The corresponding figure for " all dwellings " (including flats, etc.) was 4.51. This latter figure is identical with that for the country generally ; and is considerably lower than the average for the other County Boroughs in Durham. This will be seen from the following :—

	Average No. of Persons per Family.	
	In Ordinary Dwellings (does not include flats, etc.)	In all Dwellings (including flats, etc.)
All England and Wales	4.38	4.51
All Urban Districts	4.40	4.52
All Rural Districts	4.32	4.44
Total of County Boroughs	4.43	4.56
Northumberland : County	4.68	4.73
Newcastle	4.80	4.65
Durham : County	4.89	4.95
County Boroughs—		
Gateshead	4.52	4.78
West Hartlepool	4.72	4.75
Sunderland	4.51	4.60
South Shields	4.35	4.51

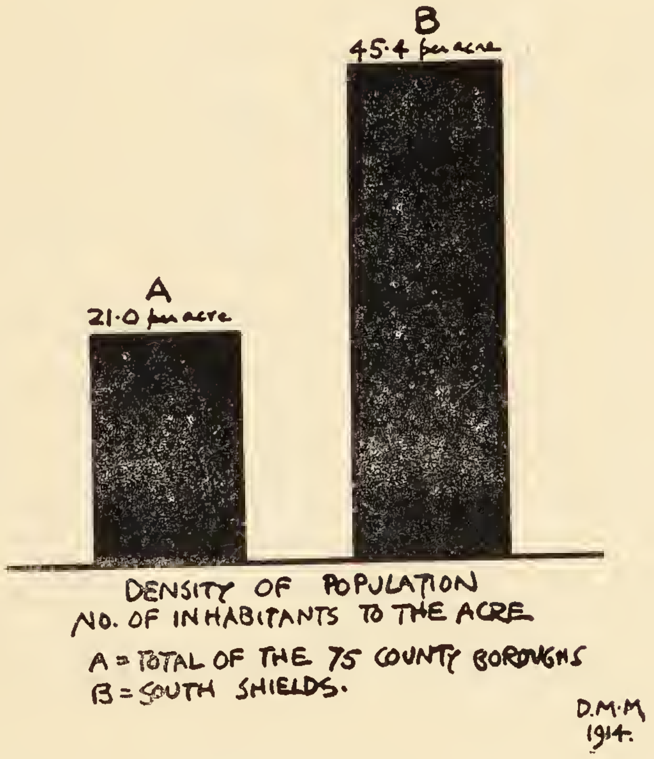
(E) RELATION OF INHABITANTS TO AREA: DENSITY, WARD DISTRIBUTION, etc.

1. Population-density of the Borough.

The area of the Borough being 2,391 acres, and the population at the time of the Census 108,647, the density of the population at that time was 45.4 persons per acre.

On the estimate that the population of the Borough at the present time is approximately 114,000, the density has now increased to 47.7 persons per acre.

If the corresponding ratio for the 75 County Boroughs of England and Wales at the time of the Census is calculated, it will be found to be 21.0 persons per acre—considerably less than half the density of South Shields.



The density of population per acre in other neighbouring towns as calculated from Census returns is shown below :—

Sunderland	45	persons per acre.
Gateshead	37	,, ,,
Newcastle	32	,, ,,
West Hartlepool	24	,, ,,
Stockton	18	,, ,,
Darlington	14	,, ,,

If, instead of the total area of the Borough, the area occupied by domestic dwellings (1,186 acres) is taken, the density is found to be 96.1 persons per acre.

2. Ward Distribution of Population.

The population at the Census was distributed throughout the different Wards in the Borough as follows :—

Districts.	Wards.	Males.	Females.	Total Population.
North ..	Shields	3,368	3,137	6,505
	Beacon	4,128	4,448	8,576
	St. Hilda	2,422	2,400	4,822
	Hadrian	3,483	4,047	7,530
West ..	Holborn	3,223	2,885	6,108
	Laygate	3,323	3,478	6,801
	Rekendyke	4,046	4,117	8,163
	Deans	5,155	5,245	10,400
East....	Victoria	4,976	5,054	10,030
	Bents	3,139	3,844	6,983
	Westoe	3,335	4,235	7,570
South ..	Tyne Dock	5,191	4,437	9,628
	Simonside	3,658	3,673	7,331
	West Park	3,839	4,361	8,200
	Total	53,286	55,361	108,647

It is interesting to note the striking excess of males over females in the Tyne Dock and Holborn Wards, noticeable to a less degree in the Shields and St. Hilda Wards. In all the other Wards females are in excess of males—notably in Hadrian, Bents, Westoe, and West Park ; this is accountable for partly by the number of male residents in these Wards who are engaged in maritime pursuits.

Of the total population, 1,059 were enumerated on 87 vessels lying in the River Tyne ; the great majority of these being included in the Tyne Dock, Holborn, and Shields Wards, and accounting to a considerable extent for the preponderance of males in those Wards noted above.

3. Density of Population in the Wards.

The density of the population in the Wards varied considerably ; and is shown below, the Wards being arranged in order of density. (It has to be noted that the area given includes foreshore and tidal water, as well as inland water, railway sidings, etc. The areas of the Wards excluding these are not yet available).

Ward.	Population.	Acreage.	Population per Acre.
Laygate	6,801	34.6	197
Rekendyke	8,163	47.4	172
Deans	10,400	62.5	166
Victoria	10,030	78.2	128
Shields	6,505	107.2	61
Hadrian	7,530	135.9	55
St. Hilda	4,822	101.2	48
Beacon	8,576	184.1	47
Holborn	6,108	141.1	43
Simonside	7,331	274.2	27
Westoe	7,570	318.6	24
West Park	8,200	345.2	24
Bents	6,983	321.6	22
Tyne Dock	9,628	493.1	20

The remarks on p. 55, dealing with the characteristics of the various Wards should be borne in mind when considering these figures. As is there pointed out, Laygate, Rekendyke, Deans, and Victoria are the four Wards in which the Ward area is occupied by domestic buildings almost exclusively.

4. Note on Density of Population in various Counties.

It will be of interest to refer here briefly to the population-density of the counties of England and Wales in order to bring out the position occupied by Durham. Outside of London, Middlesex is the most densely populated county, with 4,848 persons per square mile ; Lancashire comes second, with 2,554 ; Glamorganshire third, with 1,383 ; Durham fourth, with 1,350. Northumberland is comparatively low on the list, with 345 ; the least-densely populated county being Radnorshire, with 54 persons to the square mile.

(F) RELATION BETWEEN INHABITANTS AND DWELLINGS.

1. Persons per House.

It will be remembered that the term " house " bears a different significance in different districts ; that, for example, a " block of flats " is a " house " for Census purposes. This fact must be allowed for in comparing statistics for South Shields, where the flat system predominates, with those for other districts where this system is almost unknown. Again, the amount of sub-letting varies considerably.

The number of persons per house in South Shields, as based on the Census returns, was 7.89 in 1911 ; and 8.09 in 1901. This would appear to suggest an improvement in the amount of accommodation per person during the intercensal period. But it must not be overlooked that during this period there was a considerable change in the character of the houses in the Borough ; a number of multiple-dwelling "houses" of the old type being abandoned or closed, and newer property, chiefly in the nature of two-dwelling houses, being built and opened up for occupation.

A similar more or less apparent improvement is seen throughout the country ; as will be gathered from the following table, in which the large towns with the greatest and least number of persons per dwelling in 1911 is shown, together with the corresponding figures for 1901. The towns are arranged in order of density as regards the 1911 conditions.

Towns.	*Average number of Persons per House.* 1901.	1911.
Devonport (highest, in 1911)	8.85	8.23
Newcastle-upon-Tyne	8.16	8.13
South Shields	**8.09**	**7.89**
Gateshead	8.01	7.33
Willesden	7.16	7.16
Plymouth	7.86	6.79
West Ham	6.46	6.52
Sunderland	6.80	6.42
……		
……		
Huddersfield	4.25	4.17
Bradford	4.36	4.08
Rochdale	4.12	4.00
Halifax (lowest, in 1911)	4.21	3.97

The average figure for all England and Wales in 1911 was 5.05 ; for the seventy-five County Boroughs, 4.99 ; for the County of Northumberland, 5.45 ; for the County of Durham, 5.32.

2. Persons per Dwelling.

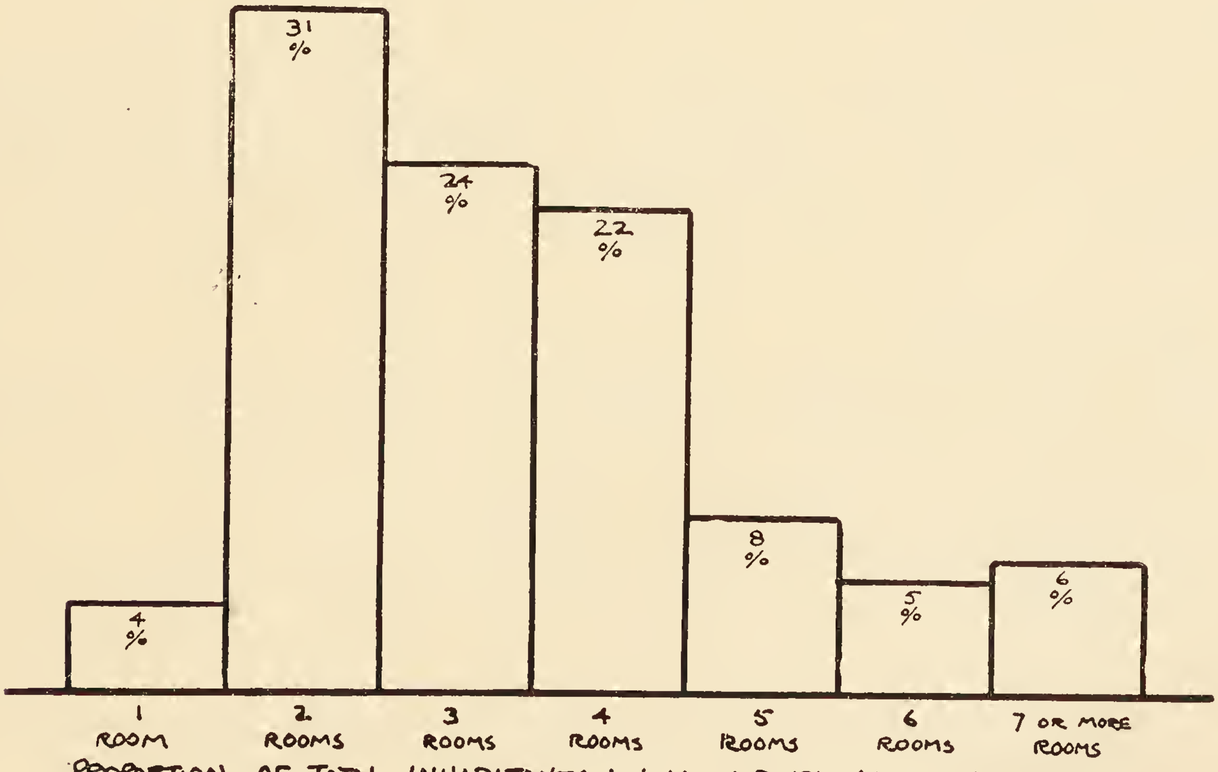
The average number of persons per dwelling in South Shields at the time of the Census, as based on the number of persons (105,977) living in ordinary dwellings, dwellings in blocks of flats, and shops (20,914), was 5.07.

3. Distribution of Inhabitants in Dwellings of One Room, Two Rooms, etc.

The inhabitants of South Shields were, at the Census, distributed in dwellings of various sizes, as follows :—

Size of Dwelling.	*No. of Persons inhabiting dwellings of this size.*	*No. of Families inhabiting dwellings of this size.*
One-roomed	4,403	1,657
Two-roomed	32,675	7,792
Three-roomed	25,827	5,702
Four-roomed	23,094	4,754
Five-roomed	8,159	1,645
Six-roomed	5,740	1,143
Seven-roomed	2,974	581
Eight-roomed	1,752	339
Nine-roomed	904	162
Ten rooms and more	930	165

Two roomed houses had thus the largest number of inhabitants, and also the largest number of families ; the three-roomed house taking second place; the four-roomed, third.



PROPORTION OF TOTAL INHABITANTS LIVING IN DWELLINGS OF VARIOUS SIZES

D.M.M
1914

4. Distribution of Families with Children in Dwellings of One, Two, Three, and Four Rooms

The following table gives interesting information with regard to the number of families with no children under ten years, one child under ten, two children, etc., living in one, two, three, and four-roomed dwellings respectively :—

	No. of such Families living in—			
	One-Roomed Dwellings.	Two-Roomed Dwellings.	Three-Roomed Dwellings.	Four-Roomed Dwellings.
Families with—				
No Children under 10 years	1,078	3,099	2,286	2,214
1 Child ,,	284	1,628	1,278	1,030
2 Children ,,	164	1,308	945	745
3 ,, ,,	91	962	696	453
4 ,, ,,	35	595	352	220
5 ,, ,,	5	168	128	75
6 ,, ,,	..	27	16	15
7 ,, ,,	..	4	1	2
8 ,, ,,	..	1	..	..

Thus, for example, it will be seen that one family in which there were eight children under ten years of age, and four families in which there were seven such children, were housed in two-roomed dwellings.

Again, it will be noted that a larger number of each type of family was housed in two-roomed dwellings than in dwellings of three rooms ; and a larger number in three-roomed than in four-roomed dwellings.

5. Persons per Room.

The average number of persons per room in South Shields dwellings of 1 to 9 rooms, was 1.38.

This figure is the second highest among the seventy-five County Boroughs ; Gateshead being 1.40.

The mean of the percentages for the County Boroughs was .97.

County Boroughs.	*Average No. of occupants per room in dwellings of 1 to 9 rooms.*
Gateshead (highest)	1.40
South Shields	1.38
Sunderland	1.34
Newcastle	1.34
Tynemouth	1.29
St. Helens	1.24
West Ham	1.18
Devonport	1.16
......	
......	
Liverpool	1.03
Birmingham	1.02
Leeds	1.02
Manchester	0.99
Bradford	0.98
......	
......	
Mean	0.97
......	
Norwich	0.78
......	
Great Yarmouth (lowest)	0.72

Durham and Northumberland have the distinction of taking the first five places on the list.

6. Persons per Room in Dwellings of various sizes.

The average number of occupants per room, in dwellings of various sizes in South Shields, was as follows:—

Size of Dwelling.	*Average No. of occupants per room.*
1 room	2.66
2 rooms	2.10
3 ,,	1.51
4 ,,	1.21
5 ,,	0.99
6 ,,	0.84
7 ,,	0.73
8 ,,	0.65
9 ,,	0.62
1 to 9 ,,	1.38

It will be seen from these averages that as the number of rooms per dwelling increases, the number of persons per room steadily decreases. In other words, the families inhabiting the smaller houses are not relatively small, on the average, compared with the families inhabiting the larger houses ; as is sometimes stated.

A comparison with the conditions obtaining elsewhere is given in the following table :—

Size of Dwelling. (Rooms.)	Average Number of Occupants per Room.		
	England & Wales.	Total of 75 County Boroughs.	South Shields.
1	1.90	2.00	2.66
2	1.59	1.61	2.10
3	1.33	1.38	1.51
4	1.08	1.09	1.21
5	0.95	0.96	0.99
6	0.78	0.79	0.84
7	0.68	0.69	0.73
8	0.61	0.62	0.65
9	0.56	0.57	0.62
1 to 9	0.95	0.98	1.38

7. Persons per Room : further consideration.

If the conditions of room-accommodation under which the South Shields population was housed is further examined it is found that—

4.0 per cent.	of the total population were living in dwellings where the ratio of *persons to rooms* was not more than 1 : 2.
10.0 per cent.	were living in dwellings where the ratio was over ½, but not over 1 person per room.
12.2 per cent.	were living in dwellings where the ratio was 1 person per room.
19.0 per cent.	were living in dwellings where the ratio was over 1, but not over 1½ persons per room.
21.0 per cent.	were living in dwellings where the ratio was over 1½, but not over 2 persons per room.
11.0 per cent.	were living in dwellings where the ratio was over 2, but not over 2½ persons per room.
10.3 per cent.	were living in dwellings where the ratio was over 2½, but not over 3 persons per room.
4.8 per cent.	were living in dwellings where the ratio was over 3, but less than 4 persons per room.
6.8 per cent.	were living in dwellings where there were 4 or more persons per room.
.9 per cent.	were living in dwellings of 10 rooms or more.
100.0	

8. Overcrowding.

For the purpose of Census returns, *overcrowding is taken to mean an average of more than two persons to a room.*

In South Shields there were at the time of the Census 5,277 dwellings which were overcrowded, in accordance with this definition.

The total population living under conditions of overcrowding was 34,998.

The number of children under ten years of age living under these conditions was 13,047. This figure is 47% of the total number of children under 10 years of age in the Borough (27,566).

The amount of overcrowding in certain of the County Boroughs of England and Wales is shown below :—

County Boroughs.	*Percentage of total population living under conditions of Overcrowding.*
Gateshead (highest).............	33.7
South Shields	**32.9**
Sunderland	32.6
Newcastle-upon-Tyne	31.7
Tynemouth	30.8
Plymouth	17.6
St. Helens	16.9
....	
....	
Liverpool	10.1
....	
Average of percentages for County Boroughs	9.4
....	
Manchester	7.2
....	
....	
Derby	1.8
Burton-on-Trent	1.5
Bournemouth	1.5
Ipswich	1.3
Northampton	1.1
Leicester (lowest)................	1.1

The County Boroughs in Northumberland and Durham again easily head the list, South Shields taking second place.

It is not only the dwellings of few rooms that are overcrowded. The following shows the number of inhabitants, families, and children under 10 years of age, living under conditions of overcrowding in dwellings of 5, 6, and 7 rooms :—

Overcrowded dwellings of 5 rooms and upwards :—

	Number of Rooms.		
	5	6	7
Total Inhabitants	291	67	15
Total Families........................	25	5	1
Total number of Children under 10	81	20	5

Instances of overcrowding periodically come to my notice. In some cases the cause is lack of desire or ambition on the part of the occupants to obtain more suitable dwellings. In other cases it is stated that "houses can't be got," or that "they want a house near their work," or that "landlords object to take large families." Recently the dearth of houses shown in an earlier portion of this report has made the relief of overcrowding a very serious problem indeed.

One illustrative case may be given :—

A father and mother, with a family of fourteen (sixteen in all) were found to be inhabiting a small four-roomed dwelling. The ages of the sons were 25, 23, 22, 20, 18, 16, 7, 5, and 3 ; of the daughters, 16, 13, 11, 7, and baby of 6 months. The father and six of the sons were all at day-work (an important point) and earning good wages. It was estimated that the total income was at least £400 to £500 per annum.

The arrangements of the family for sleeping were as follows :—
Kitchen (Couch)—Four daughters, aged 16, 13, 11, 7.
Sitting-room (Bed)—Father and mother, sons aged 7, 5, 3, and baby.
Bed-room (Bed)—Three sons, 25, 23, 22.
Small bed-room (Bed)—Three sons, aged 20, 18, 16.

The sizes of the four rooms were 1,786, 1,539, 1,026, and 445 cubic feet respectively.

It is quite a common occurrence to find in houses where consumptive patients are living, two adults and two or three children living in one room. In three cases of consumption recently investigated, 8, 9, and 10 persons were found living in two-roomed dwellings ; and in two other cases, there were 5 and 6 persons respectively living in one room.

(G) SUMMARY OF ADMINISTRATIVE ACTION, 1913.

1. Action under the Housing Acts.

The work of inspection under the Housing (Inspection of District) Regulations, 1910, and cognate administrative action, were interfered with by the abnormal pressure of work in connection with the epidemic of Scarlet Fever, which fully occupied the time of the Housing Inspectors during the greater part of the year. In the following summary, in respect of each of the dwellings recorded as "inspected" a very full record was made on a special form; these records are filed and added to as occasion requires. A large number of houses in addition to those recorded below were rapidly inspected, time not allowing of complete records being made.

	Number of Dwellings or "Tenements."	*Number of "Houses"*
(*a*) *Action taken by Staff during* 1913—		
1. Dwellings inspected and records made	797	321
2. ,, ,, and recorded as "unfit for human habitation"....	186	59
3. Dwellings "represented" to local authority as "unfit"...........	59	16
(*b*) *Action taken by Local Authority during* 1913—		
4. Dwellings represented as "unfit" in respect of which *no action* was taken by the Local Authority	..	..
5. Dwellings in respect of which *Closing Orders* were made	55	15
6. Dwellings in respect of which *Demolition Orders* were made	106	40
7. Dwellings in respect of which *Closing Orders were determined*	35	9
(*c*) *Practical results obtained during* 1913—		
8. Dwellings actually closed—		
(*a*) without representation	5	2
(*b*) after representation and closing order	63	21
9. Dwellings actually demolished—		
(*a*) without representation	7	4
(*b*) after closing order, but without demolition order	..	..
(*c*) after demolition order	32	9

	Number of Dwellings or "Tenements"	*Number of "Houses"*
10. Dwellings, previously "unfit," rendered habitable—		
(*a*) without representation	39	13
(*b*) after representation, but without Closing Order	..	..
(*c*) after Closing Order	35	9

Note.—A list of the dwellings dealt with will be found in the Appendix (p. 149).

(*d*) *Appeals*—

A Closing Order was made in 1912 in respect of premises at 1, Forrest Hill, the property of the University of Durham. Certain works were carried out, and the University made application to have the Closing Order determined. This application was considered by the Local Authority ; it was decided that the work done was not sufficient to render the property fit for human habitation ; and the application was refused.

The University then gave notice of Appeal to the Local Government Board against the refusal of the Council to determine the Closing Order. A local enquiry was held, and the Local Government Board, after considering the circumstances of the case, decided that the appeal should be dismissed, and that the costs of the enquiry should be borne by the University of Durham.

(*e*) *General character of defects found.*—The principal defects which call for attention may, for practical purposes, be divided into two groups :—

(1) Those defects inherent in the construction of the house, or arising out of its relation to surrounding properties.

(2) Those defects which have arisen from lack of sufficient attention on the part of the owner of the property, or neglect and misuse by tenants.

In the first class are conditions which, generally speaking, are not aggravated by neglect ; such as damp walls due to absence of damp-proof courses, or caused by the walls having been built against hillsides ; dampness due to floors having been laid directly on the ground ; defective lighting arising from deficient window space or from the house having been built in too close proximity to neighbouring buildings ; absence of through ventilation in " back to back " houses ; and deficient yard space. These are defects which nothing but reconstruction can repair.

In the second class are defects which have developed since the construction of the property, such as dampness due to defective spouting or leaking roofs; defective yard surfaces; dilapidated flooring, window-sashes, etc. For such progressive degeneration of property careless tenants are frequently partly to blame. It is obvious, too, that defective lighting can arise from windows obscured by dirt or an unnecessary profusion of curtains; that perhaps the most general cause of badly ventilated rooms is unwillingness to use the facilities provided for ventilation. The fetid atmosphere met with, summer and winter, in so many poor class dwellings is in most instances directly attributable to tightly shut windows.

But what can reasonably be aimed at in taking action under section 17 of the 1909 Housing Act is the securing of houses with a certain minimum of structural efficiency; houses which, *if properly used*, will provide healthy dwellings for the tenants inhabiting them.

2. Supervision of Lodging Houses: (*a*) Common Lodging Houses.

There are 25 Common Lodging Houses within the Borough, with registered accommodation for 979 lodgers. At 2 houses there is accommodation for female lodgers, the total number so provided for being 19.

Of these houses, 6 are registered under section 69 (2) of the Public Health Acts Amendment Act, 1907.

The Sanitary Inspectors paid 83 visits to these houses, and 3 defects were dealt with.

The Police paid 2,103 visits; there were no prosecutions during the year.

(*b*) Seamen's Lodging Houses.

There are 59 Seamen's Lodging Houses within the Borough, with licensed accommodation for 647 seamen.

The Sanitary Inspectors paid 117 visits to these houses during the year, and 3 defects were dealt with.

The Police paid 1,636 visits; there was one prosecution during the year.

(H) GENERAL SUMMARY AND CONCLUSIONS.

Certain outstanding facts in the foregoing may be recapitulated as follows:—

(1). The area of the Borough is largely built over, or otherwise occupied, by domestic buildings, railway stations and sidings, docks, factories, etc.

(2). The town shows a very high number of dwellings to the acre; notably in Laygate Ward (46.9 dwellings per acre), Rekendyke (37.7), and Deans (37.7)—all areas of comparatively recent development.

(3). The density of the population in the Borough is approximately 47.7 persons per acre (1914). The corresponding figure for the County Boroughs (1911) was 21.0.

(4). The most densely populated Wards are Laygate (197 persons per acre), Rekendyke (172), Deans (166), and Victoria (128)

(5). The average number of persons per dwelling is 5.07; per "house," 7.89.

(6). Of the total population 31 per cent. live in two-roomed houses; 24 per cent. in three-roomed; 22 per cent. in four-roomed. (77 per cent. in all).

(7). The average number of persons per room (in dwellings of 1 to 9 rooms) is 1.38—the second highest figure among the County Boroughs of England and Wales.

The average of the corresponding figures for the County Boroughs is .97.

(8). One-roomed dwellings are relatively more densely populated than dwellings of two rooms; two-roomed than three-roomed; and so on.

(9). The proportion of the population living in flats is very high—63.1 per cent. of the total, as compared with 3.0 per cent. for the 75 County Boroughs of England and Wales.

(10). Over 63 per cent. of the dwellings in the Borough consist of 3 rooms or less. This percentage is the highest for any County Borough in England and Wales. The average of the percentages of the 75 County Boroughs is 25 per cent.

(11). The rents of working class dwellings are about 20 per cent. above the average of the chief industrial towns of the country.

(12). The rents of 95 per cent. of the dwellings in the Borough do not exceed £26 per annum—the limit of rent applicable under Section 14 of the Housing, Town Planning, etc., Act, 1909.

(13). The number of unoccupied dwellings at the present time is extremely low.

(14). The percentage of the total population living under conditions of "overcrowding" is 33.7. This is the second highest figure among the 75 County Boroughs. The average of the percentages for the 75 County Boroughs is 9.4.

From the above review of the existing system of housing, it will be seen that the population of the Borough has outgrown its accommodation. The general features which especially call for thoughtful consideration are two—areas overstocked with dwellings, and dwellings overstocked with inhabitants.

If these features are not to be reproduced in the growth of the future, it would appear that two main requirements are necessary—

(1). Extension of area, to provide room for free expansion.

(2). Better facilities for the planning of large districts, and more far-seeing control of building developments.

In my Annual Report for 1912, in emphasizing the need for a town planning scheme for the Borough, I pointed out that while *curative* measures (closing and demolition of insanitary dwellings, etc.) were applicable to existing housing conditions, and often urgently necessary, of wider importance were the *preventive* measures which deal with the building of the future. To quote from that report, " The great practical value of town-planning schemes for undeveloped areas is very rapidly becoming appreciated. Without a scientifically thought-out system of town-planning the expansion of large towns must continue to be characterised by congested districts, expensive roads, traffic difficulties, ugliness, and monotony.

" Cure in the form of street improvements and extensive reconstruction is often an exorbitantly costly process. Intelligent anticipation of probable growth costs nothing, and secures that the developments of the future will not be marred by the defects of the past.

" Owing to its peculiar natural position, South Shields has practically only one direction for expansion, namely, southwards. It is for the area to the south of the Borough that a town-planning scheme is required ; having for its main objects consideration of the direction, width, etc., of roads ; probable tramway routes ; the restriction of the number of houses to be built to the acre ; the provision of open spaces ; and the preservation of the amenities of existing districts."

Long monotonous rows of featureless houses ; dreary back-lanes; yards as substitutes for gardens ; whole districts unrelieved by a trace of greenery in any form ; " flats " instead of ordinary dwellings —these are no more necessary than desirable. It is neither necessary nor economically sound to saturate each acre of land with forty or fifty dwellings. Twelve dwellings (not two-dwelling " houses ") to the acre should be the ultimate aim ; the outside limit for the immediate future should not exceed fifteen.

The problems of housing are inseparable from the interwoven problem of public morality and public health, and their difficulties will not be successfully met if the whole weight of the burden is thrown upon local authorities. They will not be successfully met without, on the one hand, the intelligent and educated co-operation of the people; and, on the other hand, the provision of improved facilities, and, if necessary, financial assistance, by the Central Government.

PREGNANCY AND CHILDBIRTH.

(A) INSTRUCTION OF EXPECTANT MOTHERS.

During the year 16 visits were paid to expectant mothers by Mrs. Arthur, as Health Nurse. These visits afforded opportunity of giving simple instruction in the hygiene of pregnancy, and were much appreciated by the women.

Much of the illness associated with child-birth and pregnancy, and many of the defects met with in young children are undoubtedly due to lack of knowledge on the part of the mother. It is to be hoped that the future will see a development in this branch of Health Work. Unofficial information regarding cases of pregnancy is frequently received from doctors, midwives, and from the expectant mothers themselves. Instruction is invariably received with gratitude in these cases ; and systematic teaching would certainly be welcomed especially by women in the first year of married life.

(B) SUPERVISION OF MIDWIVES.

1. The Authority under the Midwives Act, 1902.

The Council is the authority under the Midwives Act, 1902. In accordance with the provisions of section 9, the powers conferred upon the Council by the Act have been delegated to the Health Committee.

2. Staff for Supervision of Midwives.

Mrs. Arthur, one of the Health Nurses on the staff of the Department, is responsible, under the Medical Officer of Health, for the inspection of midwives practising in the Borough.

3. Cases attended by Certified Midwives practising in the Borough.

(*a*) *Certified Trained Midwives.*—At the end of 1913 there were only two certified trained midwives practising in the Borough. One of these resides at Jarrow, and takes a few cases in the " East Jarrow " area of South Shields. The other obtained her certificate only in November, 1913. These two midwives attended 5 cases during the year.

(*b*) *Certified Untrained Midwives.*—There were, at the end of 1913, 22 certified midwives practising within the Borough who have *not undergone a course of training.* Six of these women are over seventy years of age. (Under section 2 of the Midwives Act, *any* woman who had been in practice as a midwife for one year previous to the passing of the Act, could claim to become " certified" if she applied within two years after the passing of the Act. In this way a large number of untrained women became certified. This number will automatically diminish as the older women cease practising, until there are no midwives on the register who have not been adequately trained).

The number of cases attended by these untrained though "certified" women during 1913 cannot be accurately stated, as the Notification of Births Act was not then in force in the Borough. It may be estimated, however, that at least 50 per cent. of the 3,495 births recorded during the year were attended by these women.

4. Uncertified Midwives.

Section 1 (1) of the Midwives Act provides that "After the 1st April, 1910, no woman shall habitually and for gain attend women in childbirth (otherwise than under the direction of a qualified medical practitioner) unless she be certified under this Act," the penalty on summary conviction not to exceed £10.

In spite of this provision, and in spite of repeated warnings, uncertified women have continued to practise within the Borough after the above date.

On 19th May, 1913, I reported to the Midwives Act Sub-Committee with regard to three women who, though uncertified, had been practising habitually and for gain.

(1). One of these (Mrs. M.W.), age 42, was the wife of a boiler-maker. She had attended and delivered three women between November, 1912, and April, 1913; receiving fees of 7s. 6d. and 10s. 6d. In two of the cases, the patients had subsequently received 30s. "maternity benefit." No doctor was in attendance at any of these cases. This woman had been warned previously. The Sub-Committee recommended that she be severely cautioned.

(2). The second case (Mrs. D.H.) had been removed from the Roll of the Central Midwives Board on 23rd March, 1909. She had subsequently practised and been cautioned in accordance with a resolution of the Health Committee of 20th December, 1910. On 20th February, 1912, she was further cautioned.

Evidence was produced to show that this woman had, between January and March, 1913, attended in childbirth five women, from each of whom she received a fee. In one case she had charged an extra fee of 1s. for signing the maternity benefit paper.

In accordance with a resolution of the Sub-Committee, a prosecution was taken against this woman. A fine of 10s. and costs was imposed.

(3). The third case (Mrs. S.C.) had been removed from the Roll of the Central Midwives Board on 19th December, 1912. She had been cautioned subsequently as to continuing to practise.

During March and April, 1913, she had attended four women in child-birth, charging a fee of 7s. 6d. In each case she signed the paper for maternity benefit, no doctor being in attendance.

In accordance with a resolution of the Sub-Committee proceedings were instituted against this woman. The case, however, was adjourned by the Magistrates for six months, on the defendant undertaking not to repeat the offence.

On 19th August I had occasion to report the first of the above cases (Mrs. M. W.) to the Health Committee. The woman, in spite of repeated warnings, had again been attending women in childbirth, stating that she was a certified midwife, and receiving fees. On a resolution of the Health Committee, proceedings were instituted against her, and she was fined £2 and costs.

5. Visits of Inspection paid to Midwives.

95 visits were paid to midwives during the year. The Health Visitor reports that the appliances, bags, and case-books were found to be on the whole in a satisfactory condition. In many cases the midwives' dress is unsuitable. Many of the older women can neither read nor write. Entries are made in their register by friends from time to time, but such entries are chiefly guess-work, and probably a considerable number of cases is unrecorded.

Where necessary instruction and advice were given. Boracic acid has been supplied to midwives in some instances, and they have been urged to show mothers how to use it.

6. Visits paid by Midwives to the Health Department.

25 visits were paid by midwives to the Health Department for instruction in connection with their work.

7. Notifications from Midwives.

In accordance with Rule E. 20, the following 93 notifications have been received from midwives :—

Stillbirths	34
Sending for medical help—	
(*a*) Abnormal Labour	35
(*b*) Delicate or Premature Infants	22
(*c*) Deaths of Infants	2

This compares with 65 notifications similarly received during 1912.

8. Suspension of Midwives owing to Infectious Disease.

One midwife was suspended from practice during the year for a short period on account of a case of puerperal fever occurring in her practice.

Rule F (1) of the Board states that it is the duty of the *Local Supervising Authority* to "at once report any suspension (with the grounds thereof) to the Central Midwives Board."

At a meeting of the Health Committee on 22nd July, 1913, it was resolved that the *Medical Officer of Health* be authorised to send to the Central Midwives Board the notification required in this connection (under Section 8 (3)). Similar authority had previously been given in connection with notifications and reports under Section 8 (4), (5), (6) of the Act.

9. Cases of Puerperal Fever attended by Midwives.

Three cases of puerperal fever occurred in the practices of midwives ; of these three cases, one died.

10. Prima Facie Cases of Negligence on the part of Midwives.

There were no such cases reported during the year.

CHILDREN UNDER SCHOOL AGE.

(A) PREVENTABLE DISEASE AND MORTALITY AMONG INFANTS.

1. Causes of Preventable Disease.

The chief causes of preventable disease and mortality among infants may be summarised as :—

(1) *Lack of knowledge* on the part of parents with regard to the care of new-born infants, the feeding and clothing of infants, and the prevention and early recognition of certain infectious diseases.

(2) *The existence of unhealthy conditions* in and about dwellings ; conditions which directly favour excessive mortality among children, and especially favour the spread of infantile diarrhoea. Among the chief of these are accumulation of house, stable and street refuse.

The common house-fly plays an energetic part in the distribution of the infections of infantile diarrhoea, and of certain other infectious diseases. As the writer of a recent monograph has pointed out " The house-fly is something more than an irritant to elderly gentlemen, and an object of interest to babies. It is now more generally realised that it is a serious menace to the health of the community . . . In temperate climates it is as important a disease-carrier as the mosquito is in warmer countries."

A collection of stable manure is one of the favourite breeding-places for flies. Eggs are deposited on the surface of the manure ; these eggs hatch out in a few hours, and, after passing through larval and pupal stages, become fully developed flies in about *nine days* from the date of laying.

The important practical deduction to be drawn from these facts is that if all accumulations of stable refuse are removed at least once in *seven days*, the eggs, larvæ and pupæ are removed also, before they have become mature insects capable of flying, that is, before they have become active carriers of disease.

In South Shields house-flies have in the past been abundant after any spell of warm weather : complaints being frequently received with regard to this form of nuisance.

During the years 1903-1912, 573 South Shields children under one year old died from Diarrhoeal diseases. The number in each of these years is as follows :—

In 1903	53	died.
,, 1904	62	,,
,, 1905	61	,,
,, 1906	88	,,
,, 1907	19	,,
,, 1908	71	,,
,, 1909	35	,,
,, 1910	43	,,
,, 1911	126	,,
,, 1912	15	,,
Total	573	,,

It will be observed that diarrhoeal diseases were more fatal in those years when the summer months were specially warm and dry, and flies in consequence specially numerous.

The following Table shows the *Infant Mortality Rates* of South Shields for the past 10 years as compared with the corresponding rates for the country generally. (The Infant Mortality Rate may be taken as the number of children, out of each 1,000 born, which die before reaching the age of one year).

Infant Mortality Rates.

	For South Shields.	*For England and Wales.*
1903	132	132
1904	144	145
1905	145	128
1906	150	132
1907	133	118
1908	133	121
1909	138	109
1910	111	106
1911	147	130
1912	106	95

It will be noted that the improvement which has occurred in the South Shields rate has failed to keep pace with the improvement of the rest of the country.

2. Recommendations—Adoption of Notification of Births Act, etc.

In view of the above facts, I laid certain recommendations before a special meeting of the Health Committee on 23rd September, 1913. These recommendations were as follows :—

1. *Adoption of Notification of Births Act*, 1901.—That this Act be adopted for the Borough. Under this Act the Medical Officer of Health receives information as to the birth of a child *within* 36 *hours.* (Under existing conditions such information

may not be received until *six or seven weeks* after birth). As a result, home visitation by Health Visitors is made possible *in every case within the first two or three days* of a child's life.

2. *Removal of Stable Refuse, etc.*—That the Council give public announcement (in pursuance of the provisions of section 50 of the Public Health Act, 1875) for the removal, *at least once in every seven days*, of manure or other refuse matters, from mews, stables, or other similar premises situated within the Borough: under a penalty not exceeding twenty shillings for each day during which such manure or other refuse matter is permitted to accumulate.

3. *Conversion of Privy Receptacles.*—That the Health Committee give careful consideration to the question of the adoption of Sections 39-42 of the Public Health Acts Amendment Act, 1907.

Section 39 (2) gives a local authority power to require that the water carriage system be installed in all *new* buildings.

The other sub-sections of section 39 give a local authority power to deal with existing buildings.

Recommendations (1) and (2) were adopted by the Council. With regard to recommendation (3) a communication was addressed to the Local Government Board, and at a later meeting of the Council it was decided to apply to the Board for an Order declaring sections 39-42 of the Public Health Acts Amendment Act to be in force within the Borough.

(B) VISITS TO HOMES WHERE BIRTHS HAVE OCCURRED.

1. Number of "first" Visits paid.

Of the 3,495 births registered in the Borough during 1913, only 277 could be investigated by the Health Nurse, owing to pressure of work in connection with other sections of health work.

254 "first" visits were paid during the year to houses where the birth of an infant had occurred. Advice and instructions were given to the mothers on infant feeding and management, and on the need for cleanliness and decency in their homes. There were numerous cases of inflamed eyes among infants, many of which were directly caused by want of cleanliness. The Health Visitor had reason to suspect that in many instances the midwife had not attended regularly and daily.

2. Number of second and subsequent Visits paid.

Only 49 re-visits were paid, chiefly in regard to infants in delicate health. Supervision was, however, urgently required in many other cases—for example, where the mothers were careless or neglectful of their homes and of their infants. The need for voluntary agencies to co-operate with the Health Department is referred to below.

3. Feeding of Infants.

The Health Visitor reports that of the 277 infants visited, about 79 per cent. were breast-fed.

It is difficult to give accurate figures as to infant feeding in the Borough. From one visit it is hardly possible to say how a child is fed ; but bottle-feeding is not considerable. On the whole, children are breast-fed longer than they should be : children are often weaned at 18 months—sometimes they are nursed till they are two years old.

4. Occupation of Mothers.

About 95 per cent. of the mothers were not engaged in any occupation other than housework. As is shown in another section of this report, there is little demand for female labour in the Borough.

(C) ENQUIRIES REGARDING DEATHS OF INFANTS.

During the year 408 children died under the age of one year. Of these deaths, 70 were investigated by the Health Nurse.

Of the 70 cases, only 30 per cent. were breast-fed infants.

Six cases of still-birth were also investigated during 1913.

(D) INFANTS' CLINIC.

Towards the end of 1913 steps were taken to start an Infants' Clinic or Consultation at the offices of my Department. The object of such a clinic is to give information and advice to mothers on the feeding and management of infants. Infants brought up are weighed regularly, and a chart of their progress kept.

As the Clinic was only begun at the end of the year no further account of it will be given in the present report.

Two addresses were given to mothers by Mrs. Arthur, Health Nurse, at meeting halls in the autumn.

(E) FUTURE DEVELOPMENTS.

For several years now some measure of attention has been paid by Health and Education Authorities to the health of children under one year of age, and to that of children of school age—that is, from five or six to fourteen years of age.

There has, of course, been no reason why children in the intervening period, between one and five years of age, should be overlooked, beyond the fact that attention to this age-period presents certain administrative difficulties. There is no doubt that these early years of a child's life are of the very greatest importance from the point of view of his future healthiness ; and that much defect which is detected for the first time in later life owes its origin to causes arising during this period.

Extension of the work of Health or Education Authorities to deal with all children under school age will develope along various lines : of which the following may probably be anticipated :—

(1) Extension of the work of home visiting by Health Nurses;

(2) Extension of the work of Infant Clinics, making greater provision for the examination of children.

(3) Development of classes of instruction for mothers on the prevention of children's ailments and the rearing of healthy children ; home management, etc. (It may be noted here that Grants are already payable to Local Authorities, under the Board of Education's Regulations for technical schools, etc., towards Schools for Mothers).

(4) Routine Medical Inspection of children under school age ; this development, although not likely to come for some time, can be foreshadowed.

(5) Co-ordination and development of voluntary agencies. In previous Annual Reports I have referred to the good which can be done in all departments of Public Health work by a trained committee of voluntary workers. Such a committee would have for its object, firstly, the study of all the influences which adversely affect the health of the community ; and secondly, the removal of many of these influences by co-operation with the official work of the Health Department.

SCHOOL MEDICAL SERVICE.

(A) STAFF AND GENERAL ARRANGEMENTS.

The present staff for the medical and dental inspection and treatment of children of school age consists, in addition to the principal School Medical Officer, of two Assistant School Medical Officers, a part-time Operating Surgeon, a part-time Dental Officer, and a School Nurse. The time of Dr. Taylor, who was appointed an assistant School Medical Officer in August, 1913, is taken up mainly with routine medical inspection ; Dr. Lyons, the other Assistant School Medical Officer, is concerned in that capacity chiefly with the examination of children with chest diseases, suspected tuberculosis, etc. Dr. Crosby has been appointed Operating Surgeon, with a view primarily to the operative treatment of cases of adenoids and enlarged tonsils ; and Mr. Diack devotes three mornings per week to dental inspection and treatment.

The general health work of the Borough and the cognate work of School Medical supervision are now fully co-ordinated in one department. In his last annual report, Sir George Newman, the Chief Medical Officer to the Board of Education, in dealing with the year ending July, 1913, states that in 248 (81.8 per cent.) of the 303 "recognised" Local Education areas, "The School Medical Officer appointed was the Medical Officer of Health of the area ; and thus in the majority of cases a more or less complete unification of the two medical services was secured." The importance of the principle of effective co-ordination has always been insisted on by the Board ; and that it is receiving growing recognition from Local Authorities is shown from an examination of the corresponding percentages to the above for successive years : these being :—1908, 73.0 per cent. 1909, 73.3 per cent. ; 1910, 77.7 per cent. ; 1911, 80.5 per cent. ; 1912, 81.8 per cent.

The statistics given in the succeeding pages of this Report are based in part on the investigations of Dr. Raffle, who left South Shields during 1913 to take up a post in another area. The excellence of the work done by Dr. Raffle during his term of office, and his keen interest in the problems of school hygiene, were well known to, and appreciated by, the Education Authority.

(B) ROUTINE MEDICAL INSPECTION.

1. Arrangements.

The object of "routine" medical inspection is to secure the examination of each individual school child at certain periods of school life.

The arrangements for routine medical inspection in the schools include the notification of the parents of children to be examined of the date and time of inspection, with an invitation to attend.

With regard to every child found on inspection to require skilled medical or dental treatment, a printed notice was given or sent to the parents, directing their attention to the fact that such treatment was required, and urging them to consult, without delay, their family medical or dental attendant.

The arrangements made for the "following up" of those children who required treatment could not, up to the end of 1913, be considered adequate. It is hoped that during 1914 a satisfactory system of following up will be established.

2. General Facts : Scope of Inspection, etc.

The number of children on the registers of public elementary schools in the Borough, at the end of 1913, was 22,354.

Visits were paid to the schools in the morning and afternoon sessions ; each infants' department and each senior department was visited at least once during the year ; the total number of inspections being 62.

Routine Medical Inspection was restricted to two groups of children :—

1. Entrants (ages chiefly 4, 5, 6) ;
2. Leavers (ages chiefly 12, 13).

The number of children in these groups who were examined during the year at routine inspections was as follows :—

Entrants :	Boys	2,254	4,423	5,986
	Girls	2,169		
Leavers :	Boys	828	1,563	
	Girls	735		

The age-distribution of children examined is shown in the following table :—

Age.	*Boys.*	*Girls.*	*Total.*
3	..	..	..
4	313	258	571
5	1,260	1,230	2,490
6	465	442	907
7	87	106	193
8	22	35	57
9	13	10	23
10	3	2	5
11	2	1	3
12	180	172	352
13	560	512	1,072
14	20	29	49
15	3	4	7
16	..	2	2
	2,928	2,803	5,731
No age record kept	154	101	255
Totals ..	3,082	2,904	5,986

3. Presence of Parents at Routine Inspections.

Parents were present at 81.5 per cent. of the inspections ; a very satisfactory result. As has been pointed out in previous annual reports, the enlisting of the interest and attention of the parents is of the greatest value in producing practical results from the work of inspection.

During previous years, the percentage of parents attending routine inspections was as follows :—

1909	73 per cent.
1910	75.5 ,,
1911	80 ,,
1912	80 ,,

As will be seen from the following table, and as one would naturally expect, the parents turned up better with the younger children than with those leaving school :—

Age Period.	No. Examined.	No. of cases in which Parents attended.	Percentage.
Entering School	4,423	3,849	87.0
Leaving School	1,563	1,032	66.0
Total	5,986	4,881	81.5

4. Children absent from Routine Inspections.

Alongside of the 5,986 children who were examined at routine inspections, 465 children whose inspection had been arranged for were absent on the date fixed, as shown in the following table :—

Age Period.	No. Examined.	No. Absent.	Percentage.
Entering School	4,423	405	9.2
Leaving School	1,563	60	3.8
Total	5,986	465	7.8

Arrangements have now been made whereby there will be an opportunity for children missed at inspections to be examined at a later date.

There were also three instances of objection on the part of parents to having children examined—two at Mortimer Road Senior School, and one at Stanhope Road Infants'.

5. Principal Defects found : those requiring Treatment.

The discovery of defects requiring treatment must be regarded as the chief aim and *raison d'être* of routine medical inspection.

Of the 5,986 children inspected, 712 or 11.89 per cent. were found to require medical attention. The defects present in these cases all showed some urgency in themselves or were definitely affecting the general health of the child. They were as follows :—

	No. of Cases requiring Treatment.	*Percentage of Total Children Inspected.*
Defective Sight and Eye Diseases ...	297	4.96
Nasopharyngeal Obstruction	149	2.49
Skin Diseases (including Ringworm) . .	129	2.16
Deafness and Ear Diseases	57	.95
Defective Teeth (septic conditions, etc.)	47	.79
Tuberculosis	5	.08
Other Defects (including Heart Defects, Anæmia, Spinal Curvature, etc.)	28	.47
	712	11.89

The treatment obtained for the above defects, and the number of children who were allowed by their parents to remain untreated, are discussed under "Treatment" in a later portion of this Report. See page 105.

6. Detailed consideration of facts revealed at Routine Inspections.

Under this heading it is proposed to review in some detail the facts revealed with regard to the 5,986 children who were examined during the year at routine inspections. A tabular statement will be found at the end of the Report. (See page 121).

Clothing and Footgear.—Children are often specially cleansed and dressed for the medical inspection ; this is an obstacle in the way of obtaining accurate information as to general cleanliness, and sufficiency of clothing. The teacher who sees the child every day has better opportunities of studying these subjects than the medical inspector.

The recorded results of medical inspection must, therefore, be regarded as rather euphemistic in these particulars. As regards clothing they are as follows :—In the case of 7.4 per cent. of the "entrants," and 8.2 per cent. of the "leavers" the condition of the clothing and footgear was unsatisfactory ; the remainder being considered satisfactory or passable.

Condition of the Skin.—Of the children examined 2.2 per cent. had marked *pediculosis of the head*—the entrants being 2.4 per cent., the leavers 1.5. This compares favourably with the corresponding figures for last year—namely, 3 per cent., 3 per cent., and 2 per cent. respectively. *Pediculosis of the body* was present in 0.1 per cent. of the children examined. 9.6 per cent. were classed as "*dirty*"—the entrants being 10.0 per cent., the leavers 8.6 per cent. No children were *compulsorily cleansed* under Section 122 of the Children Act, 1908, during the year.

I expect during the coming year to put into force the arrangements detailed on page 112 of the Report; and it is to be hoped that a further reduction in the prevalence of pediculosis will result. The weakness of any measures of this nature is that they apply only to school children. Children under school age, children who have left school, and adults, are as susceptible, and harbour the disease as effectively, as children attending school. The limitation of its treatment to cases occurring in children of school age tends to obscure the fact that in this, as in other directions, the health of school children is merely a particular age-section of the general Public Health.

The following cases of skin diseases were also found :—

	No. of Cases.
Impetigo Contagiosa	73
Eczema	33
Ringworm	18
Scabies	16
Nævus	10
Warts	9
Seborrhœa Capitis	7
Ichthyosis	5
Alopecia	4
Lichen Urticatus.............	3
Herpes	3
Abscesses	3
Urticaria	2
Acne	1
Psoriasis	1
Scleroderma	1
Scald	1
	190

Nutrition : Physically Subnormal Children.—Subnormal nutrition, detected from examination of the mucous membranes, the tone of the hair and of the subcutaneous tissues, and the general functional activity of the child, rather than from the height and weight alone—considerable variations from the average in height and weight being not inconsistent with good health—was present in 940 (15.8 per cent.) of the children inspected. It is necessary to emphasize the fact that these were not all "neglected" children, or children from poor homes. Injudicious feeding, pampering, "overclothing," and hereditary tendencies are factors which contribute to the production of weakly children as effectively as neglect and insufficient feeding. Also, a number of the children here classed as physically subnormal were convalescing from illnesses. For physically subnormal children the value of schools held in the open-air is now fully recognised ; this subject is referred to later in this Report. (Page 115).

Nose and Throat.—3.4 per cent. of the children inspected showed marked obstruction of the nasopharynx. In addition to these, a large proportion had minor degrees of obstruction. The obstruction was in various forms—such as nasal polypi, adenoids, deflected nasal septum, hypertrophied turbinates, chronic nasal catarrh, alar collapse, chronic enlargement of tonsils, etc. All of these, however, produced some degree of stenosis and obstruction to nasal respiration.

Children who, either as the result of nasopharyngeal obstruction or of unchecked habit, are chronic mouth-breathers, show on the average distinct evidence of a lower level of mental capacity and educational attainment. The habit of mouth-breathing, once acquired, is difficult to eradicate, even after its cause has been removed. Great care should be taken by parents and teachers after, say, operations for adenoids, to encourage children constantly to breathe with the mouth shut.

In addition to the above, 3 children were found to be suffering from acute tonsillitis ; 2 from rhinitis ; and 1 from nasal spur.

Hearing, Ear Diseases, etc.—Of the 5,986 children inspected, 219 (3.8 per cent.) were found to be slightly deaf ; in 50 cases (0.9 per cent.) the condition was more pronounced ; and 12 children (0.2 per cent.) were suffering from marked deafness.

These cases were found among entrants and leavers, as follows :

	Entrants.	Leavers.	Total.
Normal Hearing	4,195	1,510	5,705
Slightly Deaf	177	42	219
Deaf	41	9	50
Marked Deafness	10	2	12
Total	4,423	1,563	5,986

Otorrhœa (discharge from the ears) was observed in 63 instances —49 entrants and 14 leavers ; equivalent to 1.1 per cent. of the total children examined ; 1.1 per cent. of the entrants ; and 0.9 per cent. of the leavers.

Sight, Eye Diseases, etc.—Sight testing with Snellen cards was, in accordance with the suggestion of the Board of Education, restricted to the older children. Of these children, 20 per cent. had some defect of vision, 12.2 per cent. had defect to the extent of 6/12 or over. 7 entrants specially examined were found to have defective sight. 41 (2.6 per cent.) of the "leavers" examined, and 35 (0.8 per cent.) of the "entrants" were already wearing spectacles.

Strabismus ("squint") was present in 20 (1.3 per cent.) of the leavers examined, and in 117 (2.6 per cent.) of the entrants.

Blepharitis (inflammation of the lids of the eyes) was found in 50 entrants (1.1 per cent.), and 10 leavers (.6 per cent.).

Conjunctivitis was present in 14 children examined as entrants (0.3 per cent.), and 3 examined as leavers (0.2 per cent.).

Corneal opacities were found in the eyes of 11 entrants, and 2 leavers (0.2 per cent. and 0.1 per cent. respectively).

Other eye diseases and defects were found in the case of 48 children.

Teeth.—1,822 of the children inspected at routine medical inspections, or 30.4 per cent., are recorded as having "sound dentition," or no defective teeth. 2,236 or 37.4 per cent. had not more than four teeth defective ; and 1,928 or 32.2 per cent. had more than four defective teeth. The examination of the teeth which is practicable at a routine medical inspection cannot, however, be regarded as thorough ; and the estimate of children with sound teeth given above is undoubtedly over the mark. An expert and detailed examination by a dental surgeon would reveal a much greater proportion of dental caries.

The results of special inspections carried out by the School Dental Officer are shown on p. 103.

Lung Diseases.—Only 4 cases of *Tuberculosis of the Lungs* are recorded among the children examined, all among entrants ; and 2 cases of suspected Tuberculosis–children leaving school. There is no doubt that this number would have been very much greater if better conditions were possible for medical inspections in the schools. In many schools it is impossible to set apart a room which is sufficiently secluded to allow of perfect quietness and freedom from noise ; and unless quiet can be obtained, a thorough examination of the lungs and heart cannot be carried out. In particular, one cannot hope to do justice to early cases of Pulmonary Tuberculosis, where the physical signs are often extremely delicate and difficult to detect. This is one of the drawbacks of the regulations of the Board of Education which require that routine inspections must take place on school premises. There are many obvious advantages of the present system—the children are already collected together, and inspections held in the schools allow the teachers to become acquainted with the aims and results of the examinations ; but the disadvantages ought not to be lost sight of. Possibly in the schools of the future a doctor's room will be an essential feature ; but even a specially designed room will hardly be noise-proof in the immediate neighbourhood of several hundred children whether at work or at play.

During the coming year all doubtful cases will be re-examined at the Municipal Buildings.

Chronic Bronchitis and Bronchial Catarrh was present in 141, or 2.4 per cent. of the children inspected. Of these cases no fewer than 132 were among entrants (3.0 per cent.), the other 9 being leavers (0.6 per cent.). Bronchial Catarrh is one of the common sequelæ of Measles and Whooping Cough ; it is very frequently directly traceable, however, to ignorance or carelessness on the part of parents in the matter of the clothing of children. On the one hand children are frequently found in wintry weather clad in linen and cotton under-garments, whose main claim for popularity is that they are obtainable ready-made ; home-knitted woollen undervests are rarely encountered. On the other hand, one finds children who are so swaddled in layer after layer of clothing that the skin is chronically relaxed and perspiring, the resisting power to cold never being given a chance to develop.

Deformities.—31 children showed deformities. These were as follows :—

Genu valgum	7
Curvature of the spine	3
Talipes calcaneus	3
Dislocated hip	2
Cleft palate	2
Eye excised	2
Amputated leg	1
,, finger	1
,, thumb	1
Flat foot	1
Perforated palate	1
Contracted palate	1
Supernumerary auricle	1
Wry neck	1
Deformed elbow	1
,, finger	1
Undescended testicle	1
Injury to eye	1

Nervous Diseases.—Epilepsy was found in 4 cases ; Chorea in 5 ; and 14 cases of various other forms of nervous disease were detected.

Rickets.—81 of the children examined (1.3 per cent.) showed evidence of Rickets ; 2 of these being marked cases of the disease.

Non-pulmonary Tuberculosis.—Glandular Tuberculosis was found in 10 (0.2 per cent.) of the children examined ; and Tuberculosis of bones and joints was found in 3 cases.

Glands.—202 children had definitely enlarged neck glands, the cause of the enlargement being doubtful :—

	No. Examined.	No. with Enlarged Glands.	Percentage.
Entrants	4,423	167	3.8
Leavers	1,563	35	2.2
	5,986	202	3.4

Certain Infectious Diseases.—27 children were discovered at inspections to be suffering from the following diseases :—

Chickenpox	6
Mumps	6
Scarlatina	2
Measles	1
Congenital Syphilis (3 showing Hutchinson's teeth)............................	12

Gastro-intestinal Conditions.—28 children were found to be suffering from gastro-intestinal conditions. These were as follows :

Hernia (rupture)	11 cases.
Intestinal parasites	9 ,,
Gastritis	3 ,,
Distention of colon	2 ,,
Jaundice	2 ,,
Prolapse of rectum	1 case.

Speech Defects.—Speech was defective in 37 (0.7 per cent.) of the children examined. 22 of these were stammerers, the remaining 15 having various forms of defective articulation.

Mental Condition.—The mental condition of the "leavers" examined is shown in the following table :—

	Boys.	Girls.	Total.	Per cent.
Bright	250	185	435	27.8
Normal	513	463	976	62.4
Dull	60	84	144	9.2
Mentally Defective	5	3	8	.5
Total	828	735	1,563	..

Heart and Circulation.—Organic heart disease was found in 33 children (0.6 per cent.) There were also 11 cases of *functional* heart disease.

50 children (0.8 per cent. of those examined) were found to be suffering from marked *anæmia.*

Other Defects.—Other conditions found, and not included in the above, were as follows :—

Enuresis	7
Cyst	6
Goitre	4
Cretinism	1
Mongolism	1
Albinism	1
Asymmetry of head	1
Ranula	1
Sprain	1
Broken thigh	1
Dilated venules	1
Ganglion	1

Height and Weight.—The average height and weight of the children inspected is shown in the following table :—

BOYS.

Age.	No. examined.	Average Height.		Average Weight.	
		Inches.	Centimetres.	Pounds.	Kilogrammes
4	305	39.2	99.5	36.7	16.65
5	1236	40.2	102.0	38.1	17.29
6	458	41.7	105.9	40.1	18.19
7	86	44.2	112.2	44.6	20.23
8	21	44.6	113.2	46.3	21.00
9	12	46.1	117.0	48.0	21.77
10	3	45.5	115.5	47.6	21.59
11	2	49.7	126.2	57.8	26.21
12	180	54.3	137.9	71.3	32.35
13	560	54.9	139.4	71.7	32.53
14	20	57.7	146.6	81.5	36.97
15	3	63.2	165.1	113.3	51.39
16	..	..	..	..	..

GIRLS.

Age.	No. examined.	Average Height.		Average Weight.	
		Inches.	Centimetres.	Pounds.	Kilogrammes
4	244	38.7	98.3	35.4	16.06
5	1208	40.1	101.7	37.1	16.83
6	439	41.6	105.6	39.4	17.87
7	105	43.5	110.5	43.1	19.55
8	35	45.3	115.0	46.2	20.95
9	10	46.4	117.8	47.9	21.73
10	2	49.0	124.4	60.8	27.58
11	1	49.0	124.4	55.0	24.95
12	172	55.1	139.9	72.6	32.93
13	512	55.8	141.7	76.2	34.56
14	29	58.1	147.5	88.1	39.97
15	4	57.7	146.6	96.5	43.77
16	2	60.4	153.3	97.2	44.08

Proportion who had suffered from Infectious Fevers.—At each inspection enquiries were made regarding the infectious illnesses from which the children had suffered. It was found that the infection recorded in the greatest number of cases was Measles ; Whooping Cough being the next commonest, and Chickenpox, Scarlet Fever, and Diphtheria following in the order given :—

Diseases from which Children had suffered.	Entrants.		Leavers.		Total.	
	Total.	Per cent.	Total.	Per cent.	Total.	Per cent.
Measles	2,967	67	985	63	3,952	66
Whooping Cough	1,563	35	508	33	2,071	35
Chickenpox	652	15	296	19	948	16
Scarlet Fever	143	3	187	12	330	6
Diphtheria	26	·5	28	2	54	1
Total Examined ..	4,423	..	1,563	..	5,986	..

There is a common belief that Measles and Whooping Cough are mere "children's complaints"—minor matters of no importance. This is a grave error. These two diseases were, between them, responsible for no less than 39 per cent. of the zymotic death-rate in South Shields during the past year. And apart from actually fatal cases, it is to be remembered that the diseases may leave in their train many deformities and defects ; notably, in the case of Measles, deafness, and impaired or destroyed sight ; and in the case of both Measles and Whooping Cough, serious lung defects such as Emphysema and Tuberculosis.

Number of Unvaccinated Children.—Of all the children examined, 917 "entrants" and 218 "leavers" were found to be unvaccinated—equal to 19 per cent. of the total. The comparative figures for the past five years are as follows :—

	Percentage who were unvaccinated.		
	Entrants.	Leavers	Total
	%	%	%
1909..................	14	18	16
1910..................	11	19	15
1911..................	11	18	13
1912..................	13	18	15
1913..................	21	14	19

The Vaccination Act, 1907, provides (Section 1) that no parent or other person shall be liable to a penalty for neglecting to have a child vaccinated, if within four months of the birth of the child he makes a *statutory declaration* of conscientious objection.

The majority of the "entrants" examined in the past year were born subsequent to the passing of the above Act, and come within the scope of the Section quoted. This undoubtedly accounts for the growth in the percentage of unvaccinated children during late years.

(C) SPECIAL MEDICAL INSPECTION.

The previous section has dealt with "routine" medical inspection, which is concerned with the examination of each individual school child, whether healthy or delicate, at certain periods of school life. The present section is devoted to "special" inspections—the examination of children selected, for example, by teachers and attendance officers as requiring examination for particular objects.

1. Special Inspections in the Schools.

Re-inspections.—Of the 712 children found at routine inspection to require medical treatment, 194 were re-examined at a later date. This re-examination of children is a very valuable factor in the "following-up" process. The object aimed at is, at each visit to the school for the purposes of a "routine" inspection, to again examine children who at a previous inspection were found to be defective.

Cases presented by Teachers.—As they are brought into daily contact with children in the schools, teachers have much opportunity of detecting symptoms of delicacy or disease ; opportunity which many teachers make excellent use of. At each "routine inspection" visit to a school the teacher may bring forward any such children to be examined by the medical inspector.

During the past year 153 children were presented for inspection in this way ; and the following defects were found :—

	Cases
Defective Sight and Eye Disease	30
Nasopharyngeal Obstruction	28
Skin Diseases (4 being Ringworm)	37
Verminous Clothing	6
Mental Deficiency	6
Chickenpox	6
Ear Disease and Deafness	4
Tuberculosis	3
Lung Disease (other than Phthisis)	3
Curvature of Spine	3
Defective Speech	3
Anæmia and Malnutrition	3
Measles	3
Nervous Disease	3
Defective Teeth	2
Enlarged Neck Glands	2
Gastritis	2
Mumps	1
Whooping Cough	1
Other Defects	7

Dental Inspections.—During the later months of the year visits of inspection were paid to a number of schools by the Dental Officer. The children inspected were mostly at the ages six, seven, or eight years. Inspection was in the first instance confined to these age groups with a view to the detection of commencing caries in the first permanent molar teeth.

Nineteen departments were visited, and 2,093 children were inspected (1,133 Boys and 960 Girls). The ages were as follows :—

Age 5	1
,, 6	375
,, 7	1,135
,, 8	576
,, 9	5
,, 10	1
Total	2,093

(68 Boys and 89 Girls, who were absent at the time of the Dental Officer's visit, were not inspected).

The number of sound, saveable, and unsaveable teeth recorded at these inspections is shown below :—

Temporary Teeth—	
Sound	20,927
Saveable	2,508
Unsaveable	8,719
Permanent Teeth—	
Sound	13,532
Saveable	1,575
Unsaveable	287

Only 138 children out of the 2,093 inspected had a sound dentition—a percentage of 6.6. That is, 93.4 per cent. of the children had some degree of caries.

Special Visits to Schools re Outbreak of Infectious Diseases.—Visits are paid to the schools from time to time whenever there is evidence of any infectious disease spreading therein. At these visits the members of the affected classes are inspected ; and, in the case of Diphtheria, throat swabs are taken and examined bacteriologically with a view to detecting early and " carrier " cases.

The early detection of outbreaks of Measles, Whooping Cough, and other non-notifiable infectious diseases is greatly facilitated by the system of weekly returns from the Head Teachers recently introduced, and is described on p. 119.

A special memorandum on the common infectious diseases, describing the early symptoms, etc., which was prepared and issued to the teachers, was described in detail in my last Annual Report.

2. Special Inspections at Clinics.

At the Saturday morning inspection clinic, the greater number of the children examined have, up to the present, been " attendance cases "—that is, children who have been absent from school for some time, and who are medically examined with regard to their fitness to return. Many of these cases are sent by the officers of the Attendance Department, who have frequently to deal with instances of parents keeping older children at home—ostensibly on account of illness, but really to help with housework, run errands, etc. A considerable loss of grant is prevented annually by such cases being submitted at once to a medical examination and certified " fit to attend." Slight ailments which, with adequate attention, are quickly curable, were often neglected and given as an excuse for protracted absence.

Other children seen at the inspection clinic are those sent by the teachers—many being cases of grave disease. The clinic also affords opportunities for the re-examination of cases previously inspected, where this is considered desirable.

During the year 716 children made 1,581 attendances at the Clinic. The defects present were :—

Skin Diseases (including 35 cases of Ringworm)			210
Eye Diseases and Defective Sight			155
Tuberculosis :	Lungs	50	
	Glands	11	
	Bones and Joints	10	
	Abdominal	2	
	Meninges	1	
	Skin	1	
			75
Anæmia and Malnutrition			54
Nasopharyngeal Obstruction			34
Enlarged Neck Glands			30
Ear Diseases and Deafness			18
Gastritis			16
Oral Sepsis			16
Lung Disease (Non-tuberculous)			14
Tonsillitis			12
Mental Deficiency and Epilepsy			11
Other Nervous Diseases			11
Heart Defects			8
Speech Defects			6
Chickenpox			5
Mumps			5
Deaf and Dumb			4
Deformities (including Rickets and Spinal Curvature)			4
Verminous Clothing			3
Neglect			3
Measles			1
Scarlet Fever			1
Other Defects			20
			716

(D) TREATMENT.

As Sir George Newman has pointed out, the treatment of school children includes not only curative, but also preventive and educational measures. Treatment in a wide sense may include "physical training, special methods of instruction, treatment of blind, deaf, defective, epileptic, and tuberculous children ; the teaching and practice of personal and general hygiene of the home and school, sanitation and equipment, and the control of infectious disease." It is only with treatment in the narrower sense of medical and surgical treatment of actual disease that this section of the present Report deals.

While the main prescribed duty of Education Authorities is medical inspection, experience has shown that inspection alone will not be productive of very satisfactory practical results in the way of treatment of defects found. Unfortunately, the simple notification to a parent of the existence of disease or defect in a child is, in the majority of cases, not sufficient to secure that remedial measures will be obtained. The reasons for this are, chiefly—

(1). Parents may not be convinced of the necessity for obtaining treatment. This is especially the case where the defects are not yet producing gross symptoms, or are producing symptoms which the parent regards as natural phenomena not to be interfered with (as for example where "squint" is looked upon as a family characteristic).

(2). Parents may not be able to afford the cost of treatment; and voluntary agencies, such as hospitals, dental dispensaries, etc., may not be available.

Broadly speaking, it is for the former class of cases that "following-up" by nurses, medical inspectors, etc., is most necessary; while, for the second group, treatment clinics have come to be regarded as the chief solution.

In the following paragraphs there is detailed the amount of treatment that has been obtained directly following on routine medical inspection; and the system of school clinics which have been developed in the Borough during recent months is described.

1. Treatment of Defects found at Routine Inspections.

Defects requiring skilled treatment.—As was stated on page 92, 712 children were found at routine inspections to have defects which called for medical treatment, out of 5,986 children examined.

Up to the end of March, 1914, 250 (35.1 per cent.) of these children had been treated; 88 (12.4 per cent.) were "being attended to," or "had improved"; 267 (37.5 per cent.) had not been attended to; and regarding 107 (15.0 per cent.) no definite information was available.

These results are not satisfactory: particularly when it has to be stated that a number of the 250 children recorded above as "treated" had received treatment of an unskilled character.

The remedy lies, in large measure, in more effective "following up"; and this will undoubtedly be greatly facilitated by the new arrangements described on page 111.

Defects not requiring Medical Treatment.—Of 189 children who were found to be neglected or verminous, 111 (58.7 per cent.) received or were receiving adequate attention; the remaining 78 (41.3 per cent.) had not been satisfactorily dealt with. For these cases, "following up" and where necessary stringent action under Section 122 of the Children Act, 1908, are required.

2. Treatment Clinics : Organisation.

Clinics for the treatment of children of school age were provided by the Education Authority and opened in October, 1913. In accordance with the requirements of the Board of Education, all medical, surgical, and dental treatment is under the administrative supervision of the principal School Medical Officer. On the executive staff are the two assistant Medical Officers, and an Operating Surgeon and Dental Surgeon, both part-time.

Nature of Treatment.—The scope of the treatment provided includes—

(*a*). Operative treatment for Nasopharyngeal Obstruction.
(*b*). Dental treatment : chiefly the conservative treatment of children aged 6 to 8 years ; special attention being paid to the early treatment and preservation of the first permanent molars.
(*c*). Medical treatment of Skin Diseases.
(*d*). Treatment of Eye defects : refraction work, prescribing of spectacles, etc.

Premises.—These are as follows :—

(*a*). Surgical Treatment Clinic, at Wesley Street Ocean Road. The old School Board Offices have been reconstructed and adapted. The surgical suite consists of

Operating Theatre,
Consulting Room,
Ward,
Separate Lavatory, etc.,
Waiting Room.

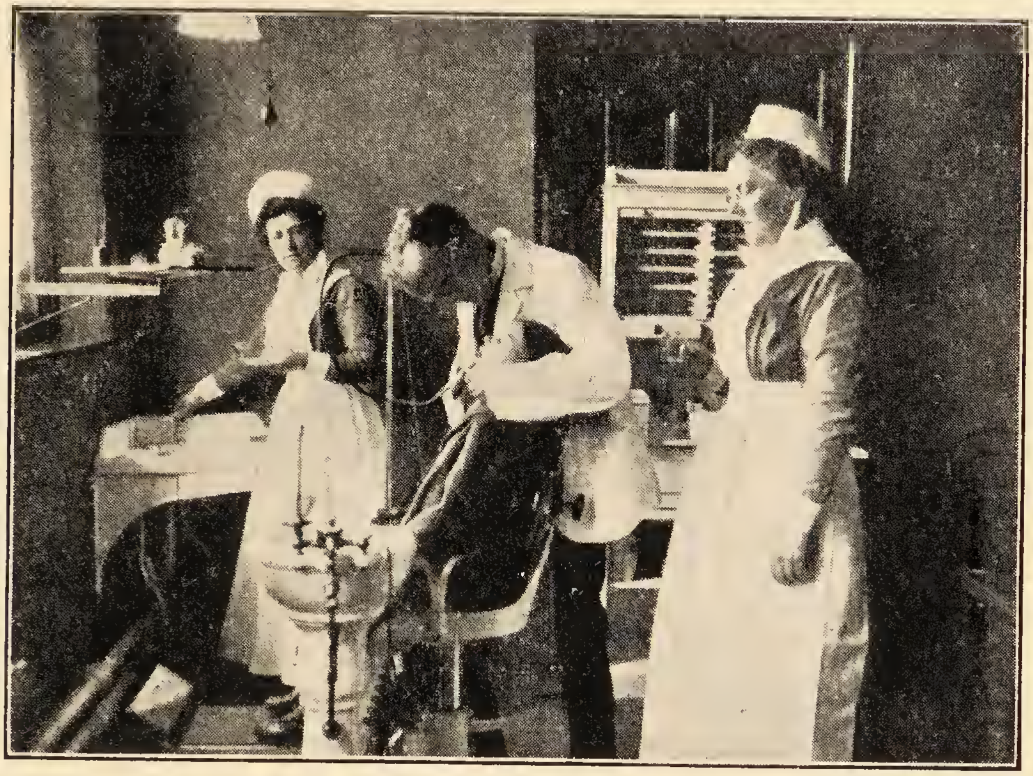
The Operating Theatre is fitted with an operating table, two surgical wash-ups, electric steriliser, instruments, etc. ; the corners between walls and ceilings have been rounded off, and other necessary alterations carried out.

The Consulting Room is used for the examination of patients by the staff as regards suitability for operation ; here also cases are re-examined after operations, and instructed in breathing exercises, etc. Electric connections are provided to facilitate the examination of the throat and nose.

The Ward contains four beds, and is used for patients recovering from anæsthetics.

The Waiting Room is used jointly for the surgical and dental clinics.

(*b*). Dental Treatment Clinic.—This is in the same building as the surgical clinic. There is a large and well-lit surgery, fitted



CORNER OF DENTAL CLINIC.

WARD IN SURGICAL CLINIC.

with operating chair, dental engine, cabinet, wash-up, sink, etc. ; a filing cabinet, where cards recording the results of treatment and inspections are filed, is also provided.

(*c*). General Treatment Clinics.—General Clinics are provided—
At the Medical Officer's Department, Municipal Buildings;
At Stanhope Road School.

At the Stanhope Road School the dining centre has been utilised, certain minor alterations having been carried out to adapt it for the purposes of a clinic. The situation of Stanhope Road School at the south end of the town makes it a convenient centre for a large and populous district.

(*d*). Eye Clinic.—At present, temporary use is being made of a room at the surgical clinic for retinoscopy. It is hoped that more suitable premises will shortly be available at the Municipal Buildings.

Scope, Methods, etc.—The Authority's scheme of treatment is applicable only to children whose parents cannot afford to pay in full for private treatment. The circumstances of each case are enquired into, and those who can afford to contribute a part of the cost of treatment are expected to do so. The children of those who cannot afford to pay are treated free. The written consent of parents is obtained before any operative or dental treatment is carried out. Children are examined with regard to their suitability for treatment by the School Medical Officer, the assistant Medical Officer, or the School Dental Officer at routine inspections, and at special inspections either in the schools or at the Inspection Clinics.

Contributions of Parents.—On the subject of contributions of parents I reported as follows to the Medical Inspection of School Children Sub-Committee :—" The Local Education Authorities' (Medical Treatment) Act, 1909, provides that 'there shall be charged to the parent of every child in respect of any treatment . . . such an amount . . . as may be determined by the Local Education Authority, and in the event of payment not being made . . . it shall be the duty of the Authority, unless they are satisfied that the parent is unable . . . to pay, to require the payment.'

I do not interpret this provision as meaning that it is obligatory for the Local Authority to fix a scale of charges which must be rigidly adhered to for all but non-paying cases.

It must be borne in mind that in the first place treatment at the Clinics is not intended to compete in any way with that which can be obtained from private medical practitioners. Parents who can afford to obtain treatment privately are expected to do so. In the second place there is considerable variation in the circumstances of those parents whose children may reasonably be treated at the Clinics, and in the amount which they can afford to contribute towards the cost of treatment. Some will be able to give nothing ; and a number will be able to give only a nominal contribution. I am of opinion, however, that in the interest of the self-respect of the parents, as well as of the finance of the Clinics, opportunity should be given to even the poorest parents of contributing if they wish to do so, no matter how small the sum may be.

It follows that while a scale may be fixed as a guide, it may frequently be necessary to vary the amounts charged to suit individual cases."

I suggested that the following scale be adopted as a general standard, and that it be left to the discretion of the Medical Officer to vary the amount of the contributions where this is called for by the circumstances of particular cases :—

Refractions	2s. to 5s.
Provision of Spectacles	1s. to 3s.
Treatment of Ringworm of Scalp	1s. to 3s.
,, ,, Body	1s.
,, of other Skin Diseases	1s.
,, Discharging Ears	2s.
,, ,, Nose	1s. to 2s.
Dental Treatment : first attendance	1s.
subsequent attendances	6d.
Operative Treatment for Adenoids and Enlarged Tonsils	2s. to 10s.

This scale has been adopted by the Education Authority as a standard, and is now in use.

Time Table.—Clinics are held at the following times :—

Inspection Clinics—

General Inspection Clinic—Saturdays, 9—12.
Dental Inspection Clinic—Fridays, 9—10.

Treatment Clinics—

General Treatment Clinic, Municipal Buildings—Tuesdays, 2—5.
General Treatment Clinic, Stanhope Road School—Thursdays, 2—5.
Dental Treatment Clinic—Tuesdays, Thursdays, and Fridays, 9—12.
Surgical Treatment Clinic—Tuesdays, 2—5.

The Head Teachers have been notified of the times of the Clinics, and informed that children who, in their opinion, require to be examined, "may be sent to the appropriate *Inspection* Clinic in the first instance, and *not to the Treatment Clinics*. The only cases which can be dealt with at the Dental Inspection Clinic at present are cases of urgency. Where patients can afford to do so, they should be advised to consult their private medical attendant. The School Clinics are not intended in any way to take the place of private medical treatment where this can be obtained."

Records.—Full records are kept on a card index system, with detailed descriptions of clinical conditions ; nature of treatment ; results of treatment ; visits of nurses to homes, etc.

3. Treatment Clinics : Work done during 1913.

Although the Clinics were established late in the year, a considerable number of cases were treated before the end of December.

Surgical Clinic.—The cases treated numbered 31, and were made up as follows :—

Tonsils and Adenoids removed	19
Tonsils removed	2
Adenoids removed	4
Adenoids and Right Tonsil removed	1
Adenoids and Left Tonsil removed	1
Adenoids removed and Tonsils incised	1
Adenoids and Right Inferior Turbinate Bone removed	1
Adenoids and Inferior Turbinate Bones removed	1
Tonsils and Adenoids and Left Inferior Turbinate Bone removed	1

Dental Clinic.—142 children received treatment. Of these, 75 were boys, 67 girls. Of the 142, 124 were selected for treatment by the Dental Officer, 18 by the assistant Medical Officer.

The nature of the treatment carried out is shown in the following table :—

Temporary Teeth extracted	128
Permanent ,, ,,	37
,, ,, filled	130
Silver Nitrate dressings	14

General Treatment Clinics.—191 children made 656 attendances. The diseases treated were :—

Impetigo Capitis and Pediculosis	79	cases.
Eye disease	22	,,
Tuberculous conditions*	4	,,
Ear disease	6	,,
Ringworm	23	,,
Itch	14	,,
Favus	2	,,
Other Skin diseases	40	,,
Abscess	1	case.

*In addition to the cases treated at the special Tuberculosis Clinic, which is dealt with elsewhere.

Eye Clinic.—Spectacles were supplied or changed for 49 children ; the defects of vision present being :—

Hypermetropia	19
Myopia	7
Astigmatism—	
Hypermetropic	19
Myopic	4
Mixed	0

Contributions received from Parents.—The total amount received from parents was £3 11s. 11d. At the Surgical Clinic, payments were made in respect of 15 of the 31 children treated, in sums varying from 2s. to 5s. ; amounting in all to £2 1s. 0d. At the Dental Clinic, payments were made in respect of 36 of the 142 children treated, in sums varying from 2d. to 2s.—total, £1 5s. 11d. At the Eye Clinic, only three contributions—one of 2s., and two of 1s. 6d.—were received.

(E) MISCELLANEOUS.

1. Future Increase in Scope of Routine Inspection.

In a circular, dated 18th August, 1913, addressed to Local Education Authorities, the Board of Education intimate that for the year beginning on the 1st April, 1915, and subsequent years, the routine medical inspection of an additional age-group will be required. At present the two groups for which routine medical inspection is required are :—

(1) Entrants (chiefly aged 4, 5, and 6).
(2) Leavers (chiefly aged 12 and 13).

The third group which is to be added consists of children between 8 and 9 years of age :

(3) Intermediate (aged 8).

The circular states that "The Board consider that the time has now come when the work of medical inspection should be consolidated by provision for the routine inspection of an intermediate age-group . . . They desire . . . to give ample notice of this extension of the work of medical inspection, in order that as little inconvenience as possible may be caused to Authorities whose provision for medical inspection is at present limited to the two age-groups hitherto prescribed by the Code."

The addition of this new group will mean a 50 per cent. increase in the work of routine medical inspection.

2. Grants for Inspection and Treatment.

Regulations providing for grants in respect of work connected with the School Medical Service during the year ending 31st March, 1914, were issued by the Board of Education on 18th August, 1913.

These Regulations contained, for the first time, provision for grants in aid of the expenditure of Local Education Authorities in connection with medical *inspection* ; the Regulations issued in April, 1912, making provision for grants in aid of medical *treatment* only.

Basis.—The Regulations provide for grants assessed on the basis of work done and payments made during the year ending 31*st July*, 1913. For future years, however, the year ending 31st March will be adopted for all financial purposes by the Board ; this will be a much more satisfactory and convenient arrangement.

Amount.—Where, in the Board's opinion the provision made for the School Medical Service is adequate and its working is efficient, grant will be paid at the rate of *one half of the expenditure* ; in other cases the Board may either pay at a lower rate or withhold the grant.

3. Reorganisation of Nursing Staff.

At the end of the year 1913, there were three Nurses on the staff of my department, one each for—

(*a*). School Work.
(*b*). Tuberculosis Work.
(*c*). Infant Mortality Work and Inspection of Midwives.

Each nurse had to cover the whole town in her visits to homes, and dealt with one class of work only. There were several drawbacks in this arrangement. Time was wasted owing to work being too much spread out ; with such a large district it was impossible for the nurses to get an intimate knowledge of families and local conditions ; duplication of work occurred, owing to cases of different character occurring in one home and having to be visited by different nurses ; each nurse became associated in the minds of the people with particular objects (a specially undesirable feature with regard to tuberculosis visiting) ; and the work of the nurses suffered through lack of variety.

The time of the School Nurse was very largely taken up with attendance at Clinics—seven sessions out of eleven being so employed per week. The remaining four sessions were devoted in large measure to weighing children at schools prior to routine inspection ; this had to be done at some period before the date of the inspection, and involved two interruptions of school work instead of one. Very little time was left for "following up" cases found to require medical attention ; and the services of a nurse to assist at routine inspections were not available.

In view of these facts, I have suggested a re-organisation of the nursing staff. This re-arrangement, which has been approved by the Committees concerned, provides for the appointment of an additional nurse—giving four nurses in all. The Borough will be divided into four districts, corresponding to those of the four Sanitary Inspectors. A nurse will be allocated to each district, and will be responsible for all the work therein—infant visiting, tuberculosis visiting, after-care, etc., school work, including "following up," attendance at routine inspections at the schools in the district, weekly visits to these schools, etc. The work of the various clinics will be distributed in rotation among the four nurses.

4. Measures for Dealing with Verminous Children.

It is proposed to put the following arrangements in force during the coming year :—

(1). Weekly visit to each school by the Health Nurse for the district. Children found to be verminous to be given a card to take home, on which are printed instructions for the treatment of the condition. If these are followed a cure can be affected in a week.

(2). The children to be seen at the next weekly visit of the Nurse. If satisfactory steps have not been taken, an urgent notice to be served, pointing out that if an attempt has not been made to remedy the child's condition within 24 hours, it will be necessary for the Education Authority to effect cleansing compulsorily.

(3). If the notice is not attended to, the children to be removed from school and cleansed where necessary, the hair being cut short.

5. Exceptional Children.

Under this heading may conveniently be classed all children who are unable adequately to benefit by the teaching in ordinary elementary schools, or may require special educational methods other than those provided in such schools.

The chief groups of these children are :—

Children with very defective sight.
" " " hearing.
Dumb children.
Mentally defective children (including feeble-minded children, imbeciles, and idiots).
Mentally subnormal children (dull or backward).
Epileptic children.
Physically defective children (including those suffering from Tuberculosis, and cripples).
Physically subnormal or weakly children.
Industrial school children.

These children may be considered according as they are at present attending ordinary elementary schools ; attending special schools ; or not attending any school.

(*a*). *Cases at present attending ordinary elementary schools.*—The following summary is based, as regards Tuberculosis, on the investigation of notified cases. Tuberculosis occurring among school children may be in such a form as to be infectious, in which case attendance at school is stopped ; the figures given below refer therefore to non-infectious cases. As regards other defects, the summary is based chiefly on recent returns made by the Head Teachers.

	Boys.	Girls.	Total.
Children with very defective sight	324	432	756
Children with seriously defective hearing	91	126	217
Dumb children	5	5	10
Children suspected to be mentally defective ..	54	41	95
Children who are mentally subnormal or dull (whose work is retarded at least two years) but who are not thought by the teachers to be "mentally defective"	231	335	566
Epileptic children	26	17	43
Cripple children	40	22	62
Children suffering from Tuberculosis........	80	68	148
Total	851	1,046	1,897

Among cases of markedly defective sight are included all children who cannot, from the back of a class-room, read writing on a blackboard. Similarly, cases of markedly defective hearing include all children who cannot hear from the back of a class-room.

The number of "mentally defective" children given includes several who have not yet been medically examined, and must therefore not be taken as a strictly accurate return.

The medical examination of these "exceptional" children is a matter of obvious importance; they are dealt with at special inspections so far as the demands of routine inspection will allow. The examination of such children has to be very carefully made, and takes up a considerable time; cases, for example, of mental defect often requiring prolonged and minute investigation.

A statement of the number of "physically subnormal" or delicate children attending the schools is not included in the above table; an exact or even closely approximate statement would be difficult to obtain. It may safely be estimated, however, that at least 10 per cent. of elementary school children come under this heading.

(*b*). *Special School Cases.*—30 children were examined during the year with regard to suitability for admission to special schools and institutions. These were as follows :—

	Boys.	*Girls.*	*Total.*
Special schools for Blind	1	0	1
,, ,, Deaf and Dumb	2	2	4
,, ,, Mentally Defective	1	0	1
Industrial schools	14	10	24
Total	18	12	30

At the end of the year, the number of South Shields children in such special schools was as follows :—

	Boys.	*Girls.*	*Total.*
Special schools for Blind	5	2	7
,, ,, Deaf and Dumb	5	6*	11
,, ,, Mentally Defective	1	2†	3
,, ,, Epileptics	5†	0	5
Industrial schools	65	24	89
Total	81	34	115

*One of these sent by Guardians. †Sent by Guardians.

(*c*). *Cases not at School.*—The following table shows the number of children in the above groups who are at present not attending school :—

	Boys.	Girls.	Total.
Children with very defective sight	1	...	1
Children with seriously defective hearing	1	...	1
Dumb children	1	1	2
Children suspected to be mentally defective	3	...	3
Children who are mentally subnormal or dull	1	...	1
Epileptic children	1	2	3
Cripple children	5	6	11
Tuberculous children	96	88	184
Total	109	97	206

6. Open Air Schools and Open Air Treatment.

In the preceding paragraph the question of the prevalence of Tuberculosis among school children, and the large proportion of children who are weakly or delicate, has been referred to.

At the present time there are on the registers in my department the names of 332 children of 4 to 14 years of age who have been notified as suffering from Tuberculosis.

Of these 176 are boys, and 156 girls.

The ages are as follows :—

Age 4	24
„ 5	25
„ 6	28
„ 7	26
„ 8	27
„ 9	38
„ 10	42
„ 11	27
„ 12	36
„ 13	43
„ 14	16
	332

The forms of Tuberculosis are :—

Pulmonary	193
Glandular	81
Bones and Joints	41
Intestinal	10
Skin	7
	332

It is safe to state that at any given time the number of school children in the Borough suffering from Tuberculosis may be taken as at least 300. The work of the Tuberculosis Clinic in connection with the examination of contacts of adult consumptives will undoubtedly reveal many early cases of Tuberculosis among school children. This is one of the chief aims of the Tuberculosis Clinic system ; to examine contacts, and detect cases in the early and saveable stages. The importance of following up this detection with practical steps to check the advances of the disease will be obvious.

Then, in addition to those children who are actually already attacked with Tuberculosis, there is the large group of physically subnormal or weakly children, many of whom may be regarded eligible candidates for the disease.

It is obviously in the interests not only of the children themselves, but of the general community and of the ratepayers (for developed phthisis is one of the heaviest charges on the rates as a prime cause of pauperism, poverty, and crime) that the question of the available means for dealing with the problem of Tuberculosis in childhood should be the subject of most serious and thoughtful enquiry. Any steps which can be shown to be practical, effective, and at the same time reasonably economical would appear to deserve careful consideration.

Open-Air Schools.—In the control of Education Authorities there is an agency which in the light of past experience may claim to be both economical and effective, as a means not only for treating early cases of Tuberculosis, but more especially for treating those other conditions which are often the forerunners of this disease. This agency is the Open-Air School.

Open-Air Schools have now stood their trial in this country for six or seven years. They are not merely well situated schools where children are taught in the open air. The curriculum is on a totally different model from that of the ordinary elementary school, based on the peculiar requirements of the children dealt with.

The types of case selected for these schools are children with early and non-infectious tuberculosis, anæmia, general debility, enlarged glands, mental dullness secondary to weak health, children convalescing from acute illnesses, etc. In many cases the diseases from which the children were suffering have been checked and cured, the condition of the blood has improved, the circulation strengthened, the lung capacity increased, and there have been remarkable gains in weight and height. The permanence of these results has been tested and proved by re-examination of the children after return to ordinary schools. Educationally, the children also benefit, the head teachers of the ordinary schools bearing testimony to this fact after their return.

The essential principle to be observed is careful selection of cases. Children in advanced stages of tuberculous disease, children whose parents will not carry out instructions regarding home life—these give very unsatisfactory results. The children should be selected from those whose disease is still within reach, and those whose home life will not unduly counteract the influences of the open-air school.

I am of opinion that there would be every justification for the Education Authority establishing in the first instance an open-air school for 150 children. There is more than ample material on the registers at the present moment for a school with that accommodation. From the results obtained they could consider at some future time whether an expansion of the scheme were justified.

Grants for Open Air Schools.—The grants provided for open-air schools are two-fold :—

(1). Grants payable under the Regulations applicable to Special Schools for Defective, etc., Children ;

(2). Grants payable under the Regulations dealing with Medical Treatment and Care. The regulations issued on 18th August, 1913, state that the Board of Education will make grants to Local Education Authorities in respect of the medical treatment and care of children *suffering from tuberculosis or other ailments* for which open-air treatment is specially suitable, in attendance at Open-air Schools certified by the Board. (The grants made under these regulations will be *in addition* to the grants payable under the regulations applicable to Schools for Defective Children). The maximum grant under the heading is at the rate of £3 per unit of average attendance in the case of Day Schools, and at the rate of £8 per unit of average attendance in the case of Residential Schools.

Open-Air Teaching in Ordinary Schools.—Before leaving this question, I should like to press the claims of the extension of open-air methods to the ordinary schools so far as possible—in the form of playing-ground classes, etc. The principle is undoubtedly a sound one ; and while the results obtained from schools situated in more or less congested town areas, and run on ordinary lines as regards curriculum, cannot compare with those obtained at a specially situated and organised Open-Air School, they are, nevertheless, sufficiently marked to be of much practical value.

In connection with many of the schools in the Borough classes are now frequently held in the play-grounds during the summer months. This can only be done in rotation among the classes; and a disadvantage to be noted is that asphalt play-ground surfaces become rapidly heated up in sunny weather; earth or grass surfaces giving a much more equable temperature.

The photograph opposite page 118 shows the roof play-ground at the new St. Bede's School, in use for teaching and drilling.

7. Provision of Meals for Necessitous Children.

The arrangements made by the Authority for this purpose are as follows :—A necessitous case, found by a Medical Inspector, Teacher, Attendance Officer, etc., is instructed to make application at the School Attendance Department. Here full particulars are taken, and if the case is found to be genuine, a book containing 10 tickets—to cover two school weeks—is issued. This entitles the child to one free meal per day for two weeks. The meals are obtained from local caterers, who supply a meal of soup and bread at a cost to the Local Authority of 1½d. per meal. There are three centres—at Laygate, Mill Dam and Tyne Dock. At the end of the two weeks, parents return and renew their application.

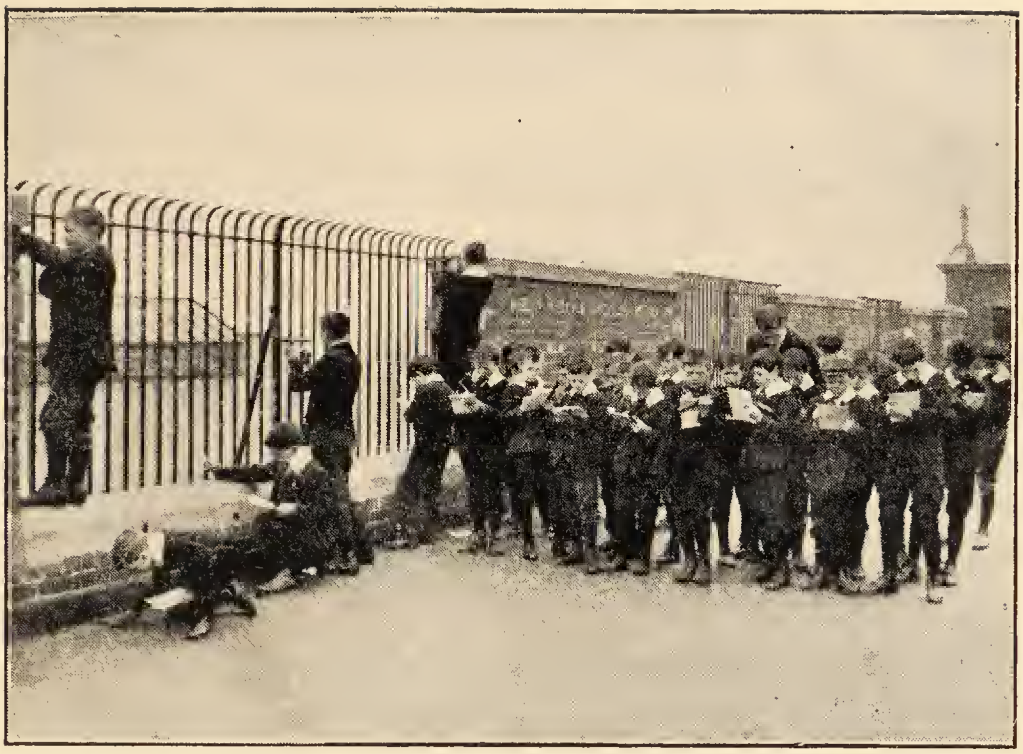
During the year, which was one of great trade prosperity, only 27 children were provided with free meals; the total number of meals being 460—137 in January, 14 in September, 80 in October, 90 in November, and 139 in December.

An application was made to the Board of Education, under Section 3 of the Education (Provision of Meals) Act, 1906, for sanction to expend a sum not exceeding £50 during the financial year ending March 31st, 1914.

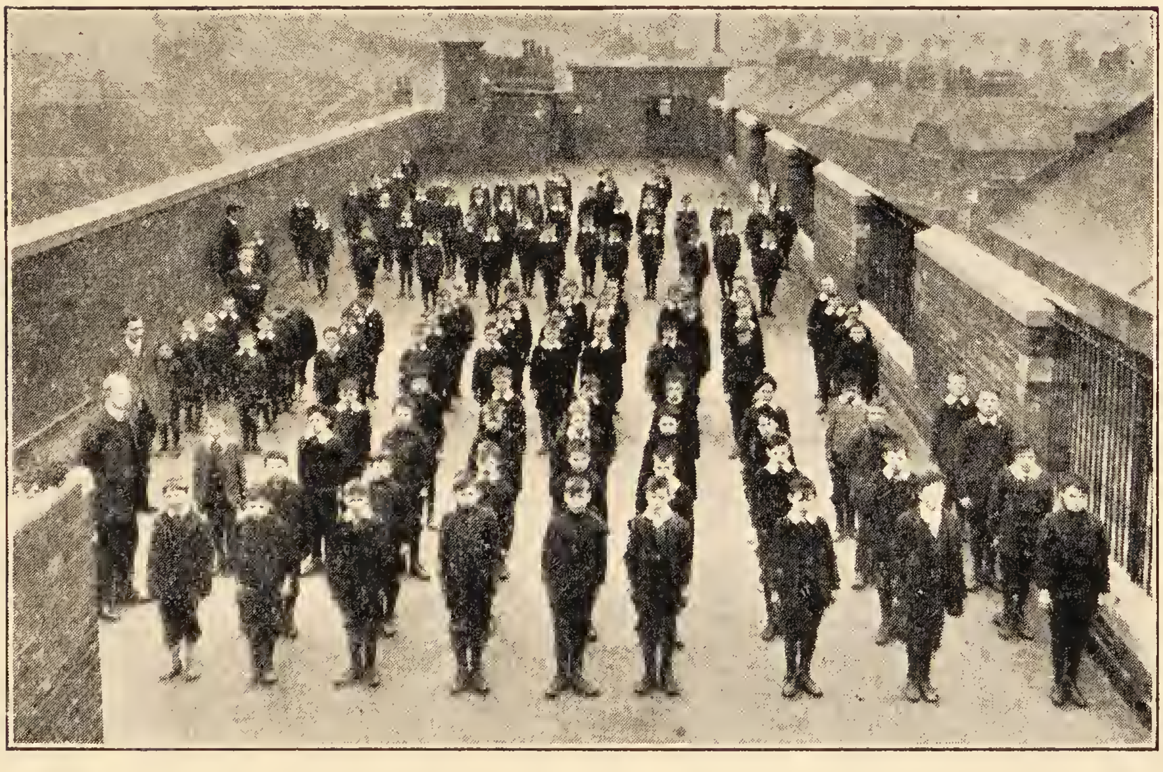
8. Unofficial and other Agencies dealing with School Children.

Children's Care Committee.—The result of a year's work of this Committee, under the chairmanship of Mrs. Hilton, is shown in the following summary of cases dealt with :—

	Cases.
General neglect	74
Insufficient clothing and footgear	48
Poverty	44
Verminous conditions	18
General delicacy	25
Sores	11
Defective sight	11
Eye disease	6
Skin disease	3
Ear disease	1
	221



ROOF PLAYGROUND, ST. BEDE'S SCHOOL.
PRACTICAL MENSURATION.



ROOF PLAYGROUND, ST. BEDE'S SCHOOL.
BOYS DRILLING.

National Society for the Prevention of Cruelty to Children.—During the year 277 complaints, of which 269 proved to be well founded, were dealt with by the local branch of the Society. 744 children were concerned. 54 of the complaints were reported by officials of the Education Authority.

The nature of the complaints were as follows :—Neglect 254 ; ill-treatment, 11 ; abandonment, 3 ; begging, 2 ; immoral surroundings, 4 ; failure to notify nurse-child, 3.

Poor Children's Holiday Association.—Under the auspices of this Association, 24 children—2 boys, 22 girls—were sent for a fortnight's holiday in the country ; 4 to Wark, 5 to Bellingham, and 15 to Hartley.

Shoeless Children Fund.—The last annual report of the Fund shows that during the year 817 children—420 boys and 397 girls—were each supplied with one pair of boots and one pair of stockings.

9. Weekly Returns re Infectious Diseases.

I have recently, with the co-operation of the Head Teachers, instituted a system of weekly notification of cases of infectious diseases in the schools. The Head Teachers are supplied with cards of postcard size, on which is set out a printed form. On this form are spaces in which may be stated the number of children absent in each class from each of the common infectious diseases ; and also the number of children whose absence commenced during the current week. These forms are filled in at the end of each week, and forwarded to me. From a rapid survey of them as they arrive it is possible to detect at once the schools, departments and individual classes affected by any of the infectious diseases, and also the recent progress made by each disease as shown by the number of new cases that have occurred during the week. The cards are filed on the card index system ; affected departments being indicated by signals.

10. Examination of Candidates for Bursaries and Pupil Teacherships.

20 candidates were examined during 1913—2 boys and 18 girls. As regards physique they were classified :—

	Boys.	Girls.	Total.
Above the average	1	3	4
Average	..	13	13
Below the average	1	2	3
Total	2	18	20

Two girls were found to be unvaccinated. Five girls had defective vision, corrected by spectacles. One girl had defective vision, which was subsequently corrected by spectacles.

11. Municipal Swimming Baths.

The popularity of the Municipal Baths is growing among the school children. During the year 22,390 attendances were made by children, as compared with 20,663 last year ; an improvement which, as the Manager points out in his report, was "largely due to the Dean Road School sending a class of boys throughout the winter months ; and also to a slightly increased number of children using the bath during school holidays."

Free passes for the year were granted to 39 school children ; of whom 25 boys gained certificates for proficiency in life saving. Under a scheme inaugurated by the Amateur Swimming Association of England, 11 boys and 3 girls, as a reward for attaining proficiency in swimming, received a free pass for a period of twelve months.

TABLE A.—NUMBER OF CHILDREN EXAMINED AT ROUTINE INSPECTIONS.

	Entrants.				
Age.	4	5	6	Other ages (over 6).	Total.
Boys	313	1,260	465	126	2,164
Girls	258	1,230	442	153	2,083
Total	571	2,490	907	279	4,247

	Leavers.				
Age.	12	13	14	Other ages	Total.
Boys	180	560	20	4	764
Girls	172	512	29	7	720
Total	352	1,072	49	11	1,484

NOTE.—In addition to the above, 255 children were inspected in the early part of the year a record of whose ages was not kept. These were—

Entrants :	Boys	90
	Girls	86
Leavers:	Boys	64
	Girls	15

TABLE B.—PHYSICAL CONDITION OF CHILDREN EXAMINED AT ROUTINE INSPECTION.

Condition.		Entrants.				Leavers.				Total.			
		Boys.	Girls.	Total.	Per cent.	Boys.	Girls.	Total.	Per cent.	Boys.	Girls.	Total.	Per cent.
Total Inspected		2,254	2,169	4,423	..	828	735	1,563	..	3,082	2,904	5,986	..
Clothing & Footgear.	Satisfactory	2,054	2,041	4,095	92.6	750	685	1,435	91.8	2,804	2,726	5,530	92.4
	Unsatisfactory	200	128	328	7.4	78	50	128	8.2	278	178	456	7.6
Cleanliness of Head.	Clean	2,231	2,086	4,317	97.6	827	712	1,539	98.5	3,058	2,798	5,856	97.8
	Pediculi and Impetigo Capitis	23	83	106	2.4	1	23	24	1.5	24	106	130	2.2
Cleanliness of Body.	Clean	1,998	1,977	3,975	89.9	748	679	1,427	91.3	2,746	2,656	5,402	90.2
	Dirty	251	190	441	10.0	79	56	135	8.6	330	246	576	9.6
	Pediculi	5	2	7	.2	1	..	1	.1	6	2	8	.1
Nutrition	Normal	1,812	1,881	3,693	83.5	720	633	1,353	86.6	2,532	2,514	5,046	84.3
	Below Normal	417	271	688	15.6	107	98	205	13.1	524	369	893	15.0
	Bad	25	17	42	.9	1	4	5	.3	26	21	47	.8
Nose and Throat	No Defect	2,175	2,107	4,282	96.8	800	702	1,502	96.1	2,975	2,809	5,784	96.6
	Tonsils much enlarged	33	22	55	1.2	13	20	33	2.1	46	42	88	1.4
	Adenoids marked	46	40	86	2.0	15	13	28	1.8	61	53	114	2.0
External Eye Diseases	No disease	2,197	2,107	4,304	97.3	821	723	1,544	98.8	3,108	2,830	5,848	97.7
	Blepharitis	25	25	50	1.1	1	9	10	.6	26	34	60	1.0
	Conjunctivitis	9	5	14	.3	3	..	3	.2	12	5	17	.3
	Corneal Opacities	4	7	11	.2	2	..	2	.1	6	7	13	.2
	Other Diseases	19	25	44	1.0	1	3	4	.3	20	28	48	.8

TABLE B. (Continued)—PHYSICAL CONDITION OF CHILDREN EXAMINED AT ROUTINE INSPECTION.

Condition.		Entrants.				Leavers.				Total.			
		Boys.	Girls.	Total.	Per cent.	Boys.	Girls.	Total.	Per cent.	Boys.	Girls.	Total.	Per cent.
Ear Disease	No disease	2,228	2,146	4,374	98.9	823	726	1,549	99.1	3,051	2,872	5,923	98.9
	Otorrhœa	26	23	49	1.1	5	9	14	.9	31	32	63	1.1
Teeth	Sound	701	722	1,423	32.2	201	198	399	25.5	902	920	1,822	30.4
	Less than 4 defective	793	770	1,563	35.3	357	316	673	43.1	1,150	1,086	2,236	37.4
	More than 4 defective	760	677	1,437	32.5	270	221	491	31.4	1,030	898	1,928	32.2
Lungs	No disease	2,177	2,109	4,286	96.9	819	732	1,551	99.2	2,996	2,841	5,837	97.5
	Chronic Bronchitis and Bronchial Catarrh	73	59	132	3.0	6	3	9	.6	79	62	141	2.4
	Tuberculosis	3	1	4	.1	..	..	..	..	3	1	4	.1
	Suspected Tuberculosis	..	..	..	..	2	..	2	.1	2	..	2	.03
	Other diseases	1	..	1	.02	1	..	1	.1	2	..	2	.03
Nervous System	No disease	2,238	2,167	4,405	99.6	826	732	1,558	99.7	3,064	2,899	5,963	99.6
	Epilepsy	3	..	3	.1	..	1	1	.1	3	1	4	.1
	Chorea	3	..	3	.1	..	2	2	.1	3	2	5	.1
	Other diseases	10	2	12	.3	2	..	2	.1	12	2	14	.2
Skin Diseases	No disease	2,178	2,076	4,254	96.2	819	723	1,542	98.7	2,997	2,799	5,796	96.8
	Ringworm	9	8	17	.4	1	..	1	.1	10	8	18	.3
	Impetigo	22	47	69	1.6	1	3	4	.3	23	50	73	1.2
	Scabies	7	5	12	.3	2	2	4	.3	9	7	16	.3
	Other diseases	38	33	71	1.6	5	7	12	.8	43	40	83	1.4
Rickets	No disease	2,197	2,154	4,351	98.4	823	731	1,554	99.4	3,020	2,885	5,905	98.6
	Slight	56	15	71	1.6	5	3	8	.5	61	18	79	1.3
	Marked	1	..	1	.02	..	1	1	.1	1	1	2	.03

Deformities	No Deformity	2,242	2,159	4,401	99.5	823	731	1,554	99.4	3,065	2,890	5,955	99.5
	Deformity present	12	10	22	.5	5	4	9	.6	17	14	31	.5
Tuberculosis Non-Pulmonary	No disease	2,249	2,164	4,413	99.8	825	734	1,559	99.7	3,074	2,898	5,972	99.8
	Glands................	3	4	7	.2	3	..	3	.2	6	4	10	.2
	Bones and Joints	1	1	2	.1	..	1	1	.1	1	2	3	.1
	Other forms	1	..	1	.02	..	..	..	..	1	..	1	.01
Speech	Not defective	2,233	2,165	4,398	99.4	817	734	1,551	99.2	3,050	2,899	5,949	.994
	Defective Articulation ..	9	3	12	.3	2	1	3	.2	11	4	15	.3
	Stammering	12	1	13	.3	9	..	9	.6	21	1	22	.4
Mental Condition	Bright	..	..	..	..	250	185	435	27.8	250	185	435	..
	Normal	..	..	..	..	513	463	976	62.4	513	463	976	..
	Dull	..	..	..	..	60	84	144	9.2	60	84	144	..
	Mentally Defective (all grades)	..	..	..	..	5	3	8	.5	5	3	8	..
Heart and Circulation	No disease	2,216	2,142	4,358	98.5	814	720	1,534	9.1	3,030	2,862	5,892	98.4
	Organic disease	12	11	23	.5	5	5	10	.6	17	16	33	.6
	Functional disease	3	..	3	.1	7	1	8	.5	10	1	11	.2
	Anæmia	23	16	39	.9	2	9	11	.7	25	25	50	.8

APPENDIX.

1. Summaries of certain Statistics re Births, Deaths, and Infectious Diseases.

Table 1—Deaths during 1913 : Causes.
,, 2—Deaths during 1913 : Causes and Ward Distribution.
,, 3—Births and Deaths during 1913 and previous years.
,, 4—Birth-rates and Death-rates for past forty-three years.
,, 5—Infant Deaths during 1913 : Causes and Ages.
,, 6—Infant Deaths during 1913 : Causes and Ward Distribution.
,, 7—Infectious Diseases during 1913 : Cases removed to Hospital, Ages, and Ward Distribution.

2. Summaries of the Work of the Sanitary Inspectors during 1913.

Table 8—Visits.
,, 9—Defects, etc., for which notices were issued.
,, 10—Structural Work.

3. Summary of Meteorological Observations during 1913.

Table 11—Observations taken daily at Health Department and at the North Marine Park.

4. List of Dwellings dealt with under Housing Acts in 1913.

Table 12—List of Houses.

TABLE I.—CAUSES OF DEATH, during 1913, of Persons belonging to South Shields, classified in accordance with [the] Registrar General's Manual of the International List, as adapted for use in England and Wales.

Causes of Death.	All Ages.	Ages at Death. 0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	55 to 60
I.—GENERAL DISEASES.																						
1. Enteric Fever	7	..	..	..	..	..	..	..	..	..	1	..	3	2	1	..	..	..	..	..	..	..
2. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. A. Relapsing fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Mediterranean fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5. A. Smallpox—Vaccinated	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. ,, Not vaccinated	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. ,, Doubtful	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Measles	58	..	..	9	9	20	10	10	1	50	7	..	..	..	1	..	..	..	..	..	..	..
7. Scarlet fever	31	..	..	1	1	3	3	2	8	17	12	1	..	..	1	..	..	..	..	..	..	..
8. Whooping cough	11	1	..	2	3	6	1	1	..	11	..	..	..	..	..	..	..	..	..	..	..	..
9. A. Diphtheria	8	..	..	..	..	1	1	1	..	3	3	1	..	..	1	..	..	..	..	..	..	..
B. Membranous laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Influenza	41	..	1	..	1	1	..	1	..	3	1	1	1	..	8	6	5	5	7	4	..	1
11. Miliary fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15. Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Erysipelas	6	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	2	1	..	..	..
19. A. Mumps	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. German measles	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..

	C. Varicella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	D. Other epidemic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20.	A. Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Septicæmia	3	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	..	1	..	..
	C. Vaccinia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21.	Glanders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22.	Anthrax (Splenic fever)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23.	Rabies	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24.	Tetanus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25.	A. Actinomycosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other mycoses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26.	Pellagra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
27.	Beri-beri	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28.	A. Pulmonary tuberculosis (not acute)	75	..	..	1	1	1	..	..	..	2	..	2	7	10	20	12	16	6	..	..	..	2
	B. Phthisis (not defined as tuberculous nor acute)	64	..	..	..	..	..	..	1	1	2	..	4	10	7	13	11	11	5	1	..	..	4
29.	A. Acute phthisis	9	..	..	..	..	..	..	..	..	..	..	2	..	2	2	3	..	..	..	..	..	..
	B. Acute miliary tuberculosis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
30.	Tuberculous meningitis	27	..	..	1	1	3	5	1	3	13	11	1	1	..	1	..	..	..	..	..	..	..
31.	A. Tabes mesenterica	17	..	1	..	1	9	4	1	..	15	2	..	..	..	..	..	..	..	..	..	..	..
	B. Other peritoneal and intestinal tubercle	17	..	..	1	1	4	1	1	..	7	3	3	1	..	..	2	1	..	..	..	..	..
32.	Tuberculosis of spinal column	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
33.	Tuberculosis of joints	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
34.	Tuberculosis of other organs :—																						
	A. Lupus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Scrofula	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Other tuberculosis	3	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..
35.	Disseminated tuberculosis	8	..	..	..	..	2	..	2	..	4	1	1	..	..	..	1	..	..	1	..	..	..
36.	A. Rickets	4	..	..	..	..	4	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other forms of bone softening	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
37.	Syphilis	5	3	..	1	4	..	..	..	..	4	..	..	..	..	1	..	..	..	..	..	..	..
38.	A. Soft chancre	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Gonococcus infection	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Purulent ophthalmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE I.—CONTINUED.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																			55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
39. Cancer of the buccal cavity	8	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	3	1	1	..	1
40. ,, stomach, liver, &c.	41	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	11	11	10	5	..	7
41. ,, peritoneum, intestines, and rectum	16	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	2	6	3	1	..	3
42. ,, female genital organs	11	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	3	..	3	..	..	..
43. ,, breast	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	1	..	1	..
44. ,, skin	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..
45. ,, other or unspecified organs	17	..	1	..	1	..	2	..	..	3	..	..	..	..	1	1	3	5	3	1	..	2
46. Other tumours (situation undefined):—																						
A. Angioma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Adenoma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other tumours	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
47. Rheumatic fever	7	..	..	..	..	..	..	..	..	..	2	..	..	2	..	2	..	1	..	..	..	..
48. A. Chronic rheumatism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Osteo-arthritis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
C. Gout	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
49. Scurvy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
50. Diabetes	13	..	..	..	..	..	..	..	..	..	1	2	..	2	1	1	2	4	..	..	..	2
51. Exophthalmic goitre	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
52. Addison's disease	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
53. A. Leucocythæmia (Leuchæmia)	2	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..
B. Lymphadenoma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
54. Anæmia, Chlorosis	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..
55. A. Diabetes insipidus	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..

	B. Purpura	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	..	..	1
	C. Hæmophilia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	D. Other general diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
56.	Alcoholism (acute or chronic)	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	..	..	..	2
57.	A. Occupational lead poisoning (chronic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Non-occupational lead poisoning (chronic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
58.	Other chronic occupational poisonings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
59.	Other chronic poisonings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	II.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																						
60.	Encephalitis	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..
61.	A. Cerebro-spinal fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Posterior basal meningitis	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
	C. Meningitis, other forms	18	1	..	..	1	4	2	1	1	9	3	4	1	..	..	..	..	..	1	..	..	..
62.	Locomotor ataxy	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	1
63.	Other diseases of the spinal cord	8	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	3	1	1	..	2
64.	A. Apoplexy	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	15	8	6	1	6
	B. Serous apoplexy and œdema of brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Cerebral congestion	2	..	1	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..
	D. Cerebral atheroma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	E. Cerebral hæmorrhage	53	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	8	13	21	7	..	7
65.	Softening of brain	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..
66.	Paralysis without specified cause:																						
	A. Hemiplegia	8	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	3	1	1	1	2
	B. Paraplegia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
	C. Other forms of paralysis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
67.	General paralysis of the insane	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	5	..	..	..	..	..
68.	Other forms of mental alienation	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	1	..	1
69.	Epilepsy	7	..	..	..	..	..	..	1	1	2	..	..	1	1	2	..	1	..	..	..	..	..
70.	Convulsions (non-puerperal; 5 years and over):—																						
	A. Epileptiform convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other forms of convulsions	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..

TABLE I.—Continued.

Causes of Death.	All Ages.	Ages at Death. 0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25	35-	45-	55-	65-	75-	85 and upwards.	55 to 60
71. Infantile convulsions (under 5 years):—																						
A. Convulsions with teething ..	22	..	1	14	15	7	..	..	..	22	..	..	..	..	..	..	..	..	..	..	..	..
B. Other infantile convulsions ..	68	42	9	7	58	9	..	1	..	68	..	..	..	..	..	..	..	..	..	..	..	..
72. Chorea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
73. A. Hysteria, Neuralgia, Sciatica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Neuritis	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..
74. A. Idiocy, Imbecility	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Cretinism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Cerebral tumour	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..
D. Other diseases of the nervous system	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
75. Diseases of the eyes and annexa ..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
76. A. Mastoid disease	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the ear	4	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	1	..	..	..	1	..
III.—DISEASES OF THE CIRCULATORY SYSTEM.																						
77. Pericarditis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
78. A. Acute myocarditis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
B. Infective endocarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other acute endocarditis	15	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	9	1	..	..	..	1
79. A. Valvular disease	112	..	..	..	..	..	..	..	..	..	..	3	2	2	8	11	20	25	30	11	..	11
B. Fatty degeneration of the heart	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1	..	1
C. Other organic disease of the heart	59	..	..	..	..	..	..	..	..	..	1	..	1	1	3	7	11	16	11	7	1	11

80. Angina pectoris	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	..	..
81. A. Aneurysm	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	1	..	..	..	1
B. Arterial sclerosis	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	5	1	..	..
C. Other diseases of arteries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
82. A. Cerebral embolism and thrombosis	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	..	..
B. Other embolism and thrombosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
83. Diseases of the veins :—																						
A. Phlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Varix	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Pylephlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D Varicocele	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
84. A. Status lymphaticus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the lymphatic system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85. A. Functional disease of the heart	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Epistaxis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of the circulatory system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV.—DISEASES OF THE RESPIRATORY SYSTEM.																						
86. Diseases of the nasal fossæ	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
87. A. Laryngismus stridulus	2	..	..	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
B. Laryngitis	7	..	1	1	2	1	1	2	..	6	1	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of larynx	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
88. Diseases of the thyroid body	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
89 & 90. A. Bronchiectasis, Bronchial catarrh, &c.	2	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..
B. Other bronchitis	164	19	10	24	53	24	6	3	..	86	1	..	..	..	..	3	8	21	30	15	..	8
91. Broncho-pneumonia	69	3	4	11	18	23	8	4	3	56	4	..	..	1	..	4	1	2	..	1	..	..
92. A. Lobar pneumonia	26	..	..	..	..	..	..	..	..	..	..	1	1	1	2	6	6	6	3	..	..	3
B. Pneumonia (type not stated)	50	..	..	2	2	5	1	2	1	11	1	..	1	5	7	3	9	5	7	1	..	3
93. A. Empyema	1	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
B. Other pleurisy	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1

.TABLE I.—Continued.

Causes of Death.	All Ages.	0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	55 to 60
94. A. Pulmonary apoplexy and infarction	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Pulmonary œdema and congestion	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
C. Hypostatic pneumonia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
D. Collapse of lung (3 months and over)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
95. Gangrene of the lung	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
96. Asthma	6	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	3	1	..	..	1
97. Pulmonary emphysema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
98. A. Fibroid disease of lung	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
B. Other diseases of the respiratory system	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..
V.—DISEASES OF THE DIGESTIVE SYSTEM.																						
99. A. Diseases of the teeth & gums	2	..	..	1	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..
B. Thrush, Aphthous stomatitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Parotitis	..	..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other diseases of the mouth and annexa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
100. A. Tonsillitis		..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
B. Ludwig's angina			..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of the pharnx	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
101. Diseases of œsophagus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
102. Perforating ulcer of stomach	9	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4	1	..	..	..	1

103. A. Inflammation of stomach ..	15	2	..	..	2	..	2	..	..	4	4	..	..	..	3	..	1	..	1	2	..	..
B. Other diseases of stomach ..	3	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	..	..
104 & 105. A. Infective enteritis	18	3	1	9	13	4	..	1	..	18	..	..	..	..	..	..	..	..	..	..	..	..
B. Diarrhœa—Not returned as infective	35	6	7	12	25	7	..	..	1	33	1	..	..	..	..	..	..	1	..	..	..	1
C. Enteritis—Not returned as infective	20	1	1	1	3	4	2	1	..	10	3	2	..	..	2	..	1	..	1	1	..	..
D. Gastro-enteritis—Not returned as infective ..	7	..	..	4	4	..	..	..	1	5	..	..	..	..	..	..	..	1	..	1	..	1
E. Dyspepsia, under 2 years	3	2	1	..	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..
F. Colic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
G. Ulceration of intestines	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
H. Duodenal ulcer	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
106. Ankylostomiasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
107. Other intestinal parasites	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
108. Appendicitis	3	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	1	..	..	..	1
109. A. Hernia....................	6	..	..	1	1	..	..	..	..	1	..	..	..	..	..	1	1	2	1	..	..	..
B. Intestinal obstruction	4	..	1	..	1	..	..	..	..	1	..	..	..	..	..	1	..	2	..	..	..	2
110. Other diseases of the intestines ..	4	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	2	..	..	..	..
111. Acute yellow atrophy of liver....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
112. Hydatid of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
113. A. Cirrhosis of the liver (not returned as alcoholic)	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	2	1	..	2
B. Cirrhosis of the liver (returned as alcoholic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of liver and gall bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
114. Biliary calculi	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
115. Other diseases of the liver	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
116. A. Infarction of spleen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the spleen..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
117. Peritonitis (cause unstated)	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
118. A. Abdominal abscess, Subphrenic abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the digestive system.................	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..

TABLE I.—CONTINUED.

Causes of Death.	All Ages.	Ages at Death.																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
VI.—NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA.																						
119. Acute nephritis	25	..	1	1	2	1	2	..	..	5	2	3	1	..	1	3	4	4	2	..	..	2
120. A. Bright's disease	46	..	..	..	..	..	..	1	..	1	1	1	1	1	1	4	15	11	9	1	..	4
B. Nephritis (unqualified), 10 years and over, and Uræmia	7	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	2	1	1	..	..	1
121. Chyluria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
122. A. Abscess of kidney	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
B. Cystic disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Suppression of urine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other diseases of the kidney and annexa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
123. Calculi of the urinary passages	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
124. Diseases of the bladder	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	1	..	2
125. A. Perineal abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of urethra, &c.	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1
126. Diseases of the prostate	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
127. Non-venereal diseases of male genital organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
128. A. Menorrhagia (non-puerperal)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other uterine hæmorrhage (non-puerperal)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
129. Uterine tumour (non-cancerous)	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
130. A. Disorders of menstruation (except menorrhagia)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the uterus	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..

131.	Ovarian cyst, tumour (non-cancerous)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
132.	A. Diseases of ovary (excluding ovarian tumour)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other diseases of the female genital organs	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
133.	Non-puerperal diseases of the breast (non-cancerous)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	VII.—THE PUERPERAL STATE.																						
134.	A. Abortion	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
	B. Hæmorrhage of pregnancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Uncontrollable vomiting	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	D. Ectopic gestation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	E. Other accidents of pregnancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
135.	Puerperal hæmorrhage	4	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..
136.	Other accidents of childbirth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
137.	Puerperal fever	5	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	..	..	..	..	..	..
138.	A. Puerperal nephritis & uræmia	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
	B. Puerperal albuminuria and Bright's disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Puerperal convulsions	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
139.	A. Puerperal phlegmasia alba dolens, and phlebitis	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
	B. Puerperal embolism & sudden death	4	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..
140.	Puerperal insanity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
141.	Puerperal diseases of the breast	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	VIII.—DISEASES OF THE SKIN & OF THE CELLULAR TISSUE.																						
142.	A. Senile gangrene	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	..
	B. Noma, Gangrene of mouth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Noma pudendi	1	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
	D. Other gangrene	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2
143.	Carbuncle, boil	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
144.	A. Phlegmon	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..
	B. Acute abscess	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..

TABLE I.—Continued.

Causes of Death.	All Ages.	Ages at Death																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
145. A. Ulcer, Bedsore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Eczema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Pemphigus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other diseases of integumentary system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IX.—DISEASES OF THE BONES & OF THE ORGANS OF LOCOMOTION.																						
146. Diseases of the bones	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..
147. Diseases of the joints	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
148. Amputations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of locomotor system	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
X.—MALFORMATIONS.																						
150. A. Congenital hydrocephalus	2	..	1	.	1	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..
B. Phimosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Congenital malformation of heart	6	3	1	1	5	..	..	..	..	5	1	..	..	..	..	..	..	..	..	..	..	..
D. Other congenital malformations	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
XI.—DISEASES OF EARLY INFANCY.																						
151. A. Premature birth	84	82	1	1	84	..	..	..	..	84	..	..	..	..	..	..	..	..	..	..	..	..
B. Infantile atrophy, debility, and marasmus	66	55	5	6	66	..	..	..	..	66	..	..	..	..	..	..	..	..	..	..	..	..
C. Icterus neonatorum	3	3	..	..	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..
D. Sclerema and œdema neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

	E. Want of breast milk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
152.	A. Diseases of umbilicus, &c.	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
	B. Atelectasis	4	4	..	..	4	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..
	C. Injuries at birth	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
	D. Cyanosis neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
153.	Lack of care	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	XII.—OLD AGE.																						
154.	A. Senile dementia	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	5	2	..	..
	B. Senile decay	113	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	40	53	19	..
XIII.—AFFECTIONS PRODUCED BY EXTERNAL CAUSES.																							
155.	Suicide by poison	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..
156.	,, asphyxia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
157.	,, hanging or strangulation	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	..	..	..
158.	,, drowning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
159.	,, firearms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
160.	,, cutting or piercing instruments	5	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	2	..	..	..	..	..
161.	,, jumping from high place	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
162.	,, crushing	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
163.	Other suicides	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164.	Poisoning by food	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
165.	Other acute poisonings	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
166.	Conflagration	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
167.	Burns (conflagration excepted)	6	..	1	..	1	1	..	2	..	4	1	..	..	..	..	..	..	1	..	..	..	1
168.	Absorption of deleterious gases (conflagration excepted)	4	3	..	..	3	..	..	..	..	3	..	..	..	..	..	..	..	..	1	..	..	..
169.	Accidental drowning	14	..	..	..	..	..	..	..	..	..	..	1	..	1	3	4	2	1	2	..	..	..
170.	Injury by firearms	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
171.	,, cutting or piercing instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
172.	,, fall	16	..	..	..	..	..	..	..	..	..	..	..	..	3	2	2	1	2	4	2	..	..
173.	,, in mines and quarries	8	..	..	..	..	..	..	..	..	..	..	..	3	..	3	2	..	..	..	..	..	..
174.	,, by machine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE I.—CONTINUED.

CAUSES OF DEATH	All Ages.	Ages at Death.																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
175. Injury by other crushing (vehicles, railways, landslides, &c.)	11	..	..	..	..	..	..	1	..	1	..	..	4	1	3	..	..	1	1	..	..	..
176. ,, animals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
177. Starvation	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
178. Excessive cold	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Effects of heat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
180. Lightning	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..
181. Electricity (lightning excepted)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
182. Homicide by firearms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
183. ,, cutting or piercing instruments	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
184. ,, other means	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
185. Fractures (cause not specified)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
186. Other violence	2	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..
XIV.—ILL-DEFINED CAUSES.																						
187. Dropsy	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
188. A. Syncope (aged 1 year and under 70)	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	4	..	..	..
B. Sudden death (not otherwise defined)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
189. A. Heart failure (aged 1 year and under 70)	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	2	2	..	..	1
B. Atrophy, debility, marasmus (aged 1 year and under 70)	6	..	..	..	..	5	..	1	..	6	..	..	..	..	..	..	..	..	..	..	..	..
C. Teething	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Pyrexia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
E. Other ill-defined deaths	2	2	..	..	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
F. Cause not specified	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
TOTALS	2011	241	52	115	408	152	51	44	24	679	79	44	43	49	119	150	205	227	254	136	26	110

TABLE 2.—DEATHS DURING 1913: CAUSES AND WARD DISTRIBUTION.

CAUSES OF DEATH.	WARDS.															Total.	Deaths in Institutions in the Boro'.	
	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Unknown.		Residents	Non-Residents.
All Causes { Certified...	169	139	114	126	166	148	183	98	167	90	140	155	124	122	4	1945	73	8
All Causes { Uncertified	5	7	4	4	4	7	2	5	6	2	8	4	4	4	...	66	...	...
Enteric Fever ...	...	1	...	...	1	1	1	...	1	...	1	...	...	1	...	7	3	...
Smallpox	...	..	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	..
Measles	4	4	...	2	7	8	11	2	10	1	4	2	1	2	..	58	...	...
Scarlet Fever ...	1	7	1	1	1	2	2	3	4	1	1	2	2	3	...	31	10	...
Whooping Cough	1	...	2	...	1	1	1	...	2	1	1	...	..	1	...	11	...	...
Diphtheria and Croup ...	...	...	...	1	...	...	2	...	...	1	2	1	...	1	...	8	...	..
Influenza	3	1	2	1	1	9	6	1	3	1	...	2	5	6	...	41	...	...
Erysipelas	1	...	...	...	2	..	...	...	. .	1	...	...	...	2	..	6	...	...
Phthisis (Pulmonary Tuberculosis)	18	16	14	11	13	7	7	7	15	4	8	15	6	8	...	149	1	1
Tuberculous Meningitis	..	2	...	4	3	4	2	1	1	1	4	3	1	1	...	27	1	...
Other Tuberculous diseases	8	6	1	1	7	4	3	2	2	1	4	2	4	2	...	47	1	. .
Cancer, Malignant Disease	9	2	7	9	3	6	5	10	7	11	9	7	9	7	...	101	6	..
Rheumatic Fever	1	...	1	...	...	...	...	...	...	2	1	1	...	1	...	7	1	...
Meningitis	1	4	1	3	1	2	1	...	1	1	1	1	1	1	...	19	...	...
Organic Heart disease ...	15	13	9	14	10	12	13	10	10	9	10	21	13	17	...	176	1	...
Bronchitis	19	6	10	9	26	21	14	2	13	4	12	16	10	4	...	166	1	...
Pneumonia (all forms)...	14	17	10	7	12	9	15	8	8	4	9	17	8	7	...	145	1	...
Other diseases of Respiratory organs	..	2	1	3	...	3	1	1	3	1	1	1	3	3	...	23	...	...
Diarrhœa and Enteritis	4	3	5	4	7	6	11	3	9	1	6	7	15	4	...	85	1	...
Appendicitis and Typhlitis	...	...	..	...	...	...	...	1	...	1	1	...	...	...	...	3	3	..
Cirrhosis of Liver	...	2	2	2	2	...	1	...	...	1	...	...	...	...	...	10	...	...
Alcoholism	2	...	...	...	...	..	..	...	...	2	...	...	...	...	...	4	...	...
Nephritis and Bright's Disease	9	4	1	7	6	8	6	4	7	4	4	4	7	7	...	78	1	...
Puerperal Fever	...	...	...	...	...	...	1	...	2	...	...	1	...	1	...	5	2	...
Other Accidents and Diseases of Pregnancy and Parturition	2	...	1	...	1	2	1	1	...	1	2	...	...	1	...	12	...	...
Congenital Debility & Malformation, including Premature Birth	16	12	4	11	6	10	23	4	22	10	10	12	10	10	...	160	...	...
Violent deaths, excluding Suicide	6	1	8	5	8	7	4	2	3	2	9	5	4	3	2	69	21	5
Suicide	...	...	1	3	...	1	1	...	1	...	..	1	2	1	...	11	...	...
Other causes ...	40	43	37	32	52	32	53	41	49	26	48	38	27	32	2	552	19	2
Total ...	174	146	118	130	170	155	185	103	173	92	148	159	128	126	4	2011	73	8

TABLE 3.—POPULATION, BIRTHS, AND DEATHS FOR 1913 AND PREVIOUS YEARS.

(L.G.B. TABLE I.)

Year.	Population estimated to middle of each year.	Births.			Total Deaths registered in the Borough.		Transferable Deaths		Net Deaths belonging to the Borough.			
		Uncorrected Number.	Net. Number.	Net. * Rate	Number.	* Rate.	Of Non-Residents registered in the Borough.	Of Residents not registered in the Borough.	Under 1 year of age. Number.	Under 1 year of age. Rate per 1,000 Net Births.	At all ages. Number.	At all ages. * Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1907	105,659	3276	..	..	1717	16.3	..	..	..	..	..	..
1908	106,448	3481	..	..	1598	15.0	..	..	..	..	..	..
1909	107,244	3388	..	..	1597	14.9	..	..	..	..	..	..
1910	108,045	3404	..	..	1451	13.4	..	..	..	..	..	..
1911	108,844	3279	3300	30.3	1687	15.5	13	216	484	147	1890	17.4
1912	109,678	3322	3352	30.6	1550	14.1	18	220	356	106	1752	16.0
1913	110,513	3478	3495	31.1	1803	16.1	21	229	408	117	2011	17.9

*Rates in Columns 5, 7, and 13 calculated per 1,000 of estimated population.

For years before 1911 some of the corrected rates are not available.

NOTE.—The deaths included in Column 6 of this Table are the whole of those registered during the year as having actually occurred within the Borough. The deaths included in Column 12 are the number in Column 6, corrected by the subtraction of the number in Column 8, and the addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1 year included in the number given in Column 8, and by addition of the deaths under 1 year included in the number given in Column 9.

"**Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.** The deaths of persons without fixed or usual residence in South Shields, *e.g.*, casuals, are not included in Columns 8 or 9, except in certain instances under 3 (*b*) below. The number of transferable deaths of "non-residents" which have been deducted is stated in Column 8, and the number of deaths of "residents" registered outside the Borough which have been added in calculating the net death-rate, is stated in Column 9.

The following special cases arise as to Transferable Deaths :—

(1) Persons who die in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) are regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person who died in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient had been directly transferred from one such institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinment are referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are referred (*a*) to the district of residence, under the general rule ; (*b*) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known ; (*c*) failing this, to the district where death occurred, if known ; and (*d*) failing this, to the district where the body was found.

TABLE 4.—BIRTH-RATES, INFANT MORTALITY RATES, AND DEATH-RATES FROM VARIOUS CAUSES, 1871-1913.

(All Rates since 1901 have been re-calculated.)

YEAR.	Population.	Birth-rate.	Death-rate.	PRINCIPAL EPIDEMIC DISEASES.								Phthisis.	Other Tuberculous Diseases.	Cancer.	Bronchitis.	Pneumonia.	Pleurisy.	Influenza.	Deaths under 1 year per 1,000 Births.
				Total.	Smallpox.	Measles.	Scarlet Fever.	†Diphtheria	Whooping Cough.	"Fever."	‡ Diarrhœa.								
Mean 1871-1880 ..	..	**43·1**	**25·5**	**6·0**	**·86**	**·42**	**1·44**	**·12**	**·78**	**·79**	**1·59**	**1·91**	..	..	..	..	..	..	**164**
Mean 1881-1890 ..	..	**38·8**	**20·5**	**2·3**	**·01**	**·34**	**·45**	**·10**	**·44**	**·19**	**·78**	**1·84**	..	..	..	..	..	.	**140**
1891	78,920	37 4	22·1	2 85	...	·90	·11	·29	·61	·20	·73	1·54	·89	·39	2·12	1·81	·01	·41	176
1892	80,530	37·0	19 4	1·62	·01	·30	·12	·10	·33	·20	·56	1·51	1·52	·60	1·76	1·33	·06	·32	143
1893	82,284	35·4	22·4	3 15	·04	·39	·38	·06	·36	·35	1·56	1·99	1·28	·48	2·22	1·68	·01	·24	180
1894	84,077	35.9	17·3	1 37	...	·19	·39	·05	·11	·20	·43	1·41	·82	71	1·95	·89	·05	12	138
1895	85,910	35·1	21·2	3·36	...	·29	·18	·21	·90	·35	1·43	1·65	1·09	·62	3·25	1·48	·06	·49	187
1896	87,784	35·7	18 5	2·49	...	·92	·18	·10	·42	·27	·58	1·61	1·11	·61	1·78	1·15	·04	·05	165
1897	89,699	35·9	17·2	1·83	...	·29	·15	·09	·25	·16	·88	1·40	·92	59	1·57	·89	·02	·11	154
1898	91,656	37·0	21·5	3·09	...	57	·25	...	·77	·39	1·11	1·58	·88	·64	1·92	1·80	·01	·46	182
1899	93,657	36·0	20·7	2·33	...	·04	·21	·06	·13	·47	1·41	1·57	·68	·59	1·57	2·16	03	·30	175
1900	95,703	36·3	21·4	2·32	...	·55	·21	·12	·67	·20	·55	1·83	·79	·73	1·91	1·52	·03	·39	160
Mean 1891-1900 ..	..	**36·1**	**20·1**	**2·45**	**·00**	**·44**	**·22**		**·46**	**·28**	**·93**	**1·60**	**1·00**	**·63**	**2·00**	**1·47**	**03**	**·29**	**166**
1901	97,800	36·8	20·6	3·36	...	·68	·60	·14	·10	·22	1·60	1·63	·71	·68	1·35	1·19	·04	·18	169
1902*	101,801	36 9	19·8	2·66	·04	·93	·38	·06	1·02	06	·17	1·81	·66	·65	1·36	1·54	·05	·12	149
1903	102,561	35·4	17·6	1·04	·01	·15	·12	·16	·03	·10	·49	1·72	·73	·71	1·70	1·37	·05	·17	132
1904	103,327	35·9	18·9	1·84	·07	·27	·08	·12	62	·09	·60	1·59	·85	·65	1·69	1·42	·10	·26	144
1905	104,099	33·6	17·1	2·07	·04	·23	·06	·23	·61	·22	·68	1·21	·62	·68	1·56	1·31	·03	·19	145
1906	104,876	33·7	19·0	2·94	...	1·04	·06	·29	·37	·09	1·10	1·58	·72	·68	1·39	1·35	·04	24	150
1907	105,659	31·0	18·0	1·53	...	·46	·09	·18	·51	·04	·26	1·69	·75	·73	1·43	1·33	·04	·33	133
1908	106,448	32·7	16·8	1·98	...	·30	·08	·22	·46	·08	·85	1·29	·67	·82	1·24	1·04	·06	·37	133
1909	107,244	31·6	16 6	1·50	...	·35	·18	·19	·34	·04	·41	1·21	·63	·73	1·27	1·13	·05	·29	138
1910	108,045	31·5	15·2	1·59	·02	·16	·06	·06	·59	·06	·56	1·25	·70	·87	1·10	1·17	·05	·29	111
Mean 1901-1910 ..	..	**33·9**	**17·9**	**2·03**	**·02**	**·45**	**·17**	**·16**	**·47**	**·10**	**·66**	**1·50**	**·71**	**·72**	**1·41**	**1·28**	**·05**	**·25**	**140**
Mean 1871-1910 ..	..	**38·0**	**21·0**	**3·20**	**·22**	**·41**	**·57**	**·12**	**·54**	**·34**	**·99**	**1·71**	..	..	..	..	..	..	**153**
1911	108,844	30·3	17·4	2·07	...	·37	·01	·08	·21	·04	1·36	1·19	·58	·82	1·33	1·56	·03	·26	147
1912	109,678	30·6	16·0	1·39	...	·58	·05	·05	·46	·05	·18	1·53	·39	·71	1·50	1·25	·05	·22	106
1913	110,513	31·1	17·9	1·59	...	·51	·28	·07	·10	06	·57	1·33	·66	·90	1·48	1·28	·02	·36	117

* The Borough was extended, November, 1901.

† Since 1891, Membranous Croup has been included under Diphtheria.

‡ Diarrhœa and Enteritis (under 2 years of age) since 1905.

TABLE 5.—DEATHS OF INFANTS UNDER ONE YEAR: CAUSES AND AGES.

(L.G.B. Table IV.)

Causes of Death.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
All Causes:—	Certified	112	22	7	11	152	73	51	52	58	386
	Uncertified	8	1	1	..	10	6	1	2	3	22
Smallpox		..	..	..	..	..	..	..	..	..	..
Chickenpox		..	..	..	..	..	..	..	..	..	..
Measles		..	..	..	..	..	..	..	5	4	9
Scarlet Fever		..	..	..	..	..	..	..	..	1	1
Whooping Cough		..	..	1	..	1	..	..	..	2	3
Diphtheria and Croup		..	..	..	..	..	..	..	..	..	..
Erysipelas		..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis		..	..	..	..	..	..	..	1	..	1
Abdominal Tuberculosis		..	..	..	..	..	..	1	..	1	2
Other Tuberculous diseases		..	..	..	..	..	..	..	..	1	1
Meningitis (*not Tuberculous*)		..	..	..	..	..	1	..	..	..	1
Convulsions		13	6	4	2	25	17	10	10	11	73
Laryngitis		..	..	..	..	..	..	1	..	1	2
Bronchitis		..	2	..	1	3	17	10	10	14	54
Pneumonia (all forms)		..	..	..	1	1	2	4	8	5	20
Diarrhoea		..	..	..	..	..	9	8	8	13	38
Enteritis		..	..	..	..	..	3	2	4	1	10
Gastritis		..	..	..	1	1	1	..	..	..	2
Syphilis		2	1	..	..	3	..	..	..	1	4
Rickets		..	..	..	..	..	..	..	..	..	..
Suffocation, Overlying		..	..	..	1	1	2	..	..	..	3
Injury at birth		1	..	..	..	1	..	..	..	..	1
Atelectasis		4	..	..	..	4	..	..	..	..	4
Congenital Malformations		3	1	..	..	4	..	2	1	..	7
Premature Birth		61	7	1	4	73	9	1	..	1	84
Atrophy, Debility & Marasmus		35	6	2	1	44	14	5	5	1	69
Other causes		1	..	..	..	1	4	8	2	4	19
Total		120	23	8	11	162	79	52	54	61	408

Net Births in the Year:—

Legitimate	3,370
Illegitimate	125

Net Deaths in the Year:—

Legitimate Infants	384
Illegitimate Infants	24

TABLE 6.—DEATHS OF INFANTS UNDER ONE YEAR : CAUSES AND WARD DISTRIBUTION.

CAUSES OF DEATH.	WARDS.															Total.
	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Unknown.	
ALL CAUSES –																
Certified	27	27	18	20	29	38	50	13	42	14	27	34	27	20	...	386
Uncertified	3	...	...	1	1	2	1	2	4	...	3	2	2	1	...	22
Smallpox	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
Chickenpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	1	1	2	1	1	2	...	...	...	...	1	...	9
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Whooping Cough	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	3
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...
Tuberculous Meningitis	...	..	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Abdominal Tuberculosis	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2
Other Tuberculous diseases	...	...	...	..	...	...	...	...	...	...	...	1	...	...	...	1
Meningitis (*not Tuberculous*)	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Convulsions	7	4	4	1	6	9	8	6	4	1	9	5	3	6	...	73
Laryngitis	...	1	..	...	...	1	...	...	...	...	...	...	..	...	...	2
Bronchitis	5	4	4	4	8	8	3	...	7	...	2	5	2	2	...	54
Pneumonia (all forms)	1	2	...	...	...	3	5	..	1	...	2	4	1	1	...	20
Diarrhœa	...	...	2	2	4	4	2	2	6	1	4	2	8	1	...	38
Enteritis	...	...	1	..	1	1	3	...	...	...	...	3	1	...	...	10
Gastritis	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	2
Syphilis	...	...	...	...	1	...	2	...	...	...	...	...	1	...	...	4
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, Overlying	1	...	1	...	...	...	...	...	...	...	...	1	...	...	...	3
Injury at birth	...	...	...	...	...	...	1	...	...	...	...	...	...	..	...	1
Atelectasis	...	1	1	...	...	...	...	...	...	1	...	...	1	...	...	4
Congenital Malformations	1	1	...	...	...	1	1	1	...	1	..	...	1	...	...	7
Premature Birth	10	6	3	6	2	5	13	1	11	6	5	8	4	4	...	84
Atrophy, Debility and Marasmus	5	5	1	5	4	4	9	2	11	3	5	4	5	6	...	69
Other causes	...	1	...	2	3	1	2	2	2	...	3	1	2	...	...	19
Total Deaths under one year	30	27	18	21	30	40	51	15	46	14	30	36	29	21	...	408
Number of Births	249	257	162	208	202	248	370	145	298	200	402	303	232	216	3	3495
Infant Mortality Rate	120	105	111	101	149	161	138	103	154	70	75	119	125	97	...	117
Total Deaths at all ages	174	146	118	130	170	155	185	103	173	92	148	159	128	126	4	2011

TABLE 7.—CASES OF INFECTIOUS DISEASE NOTIFIED, AND CASES REMOVED TO HOSPITAL, IN SOUTH SHIELDS DURING THE YEAR, 1913, CLASSIFIED ACCORDING TO WARD AND AGE.

(L.G.B. TABLE II.)

Notifiable Diseases.	Cases notified in whole Borough.								Total cases notified in each Ward.															No. of cases removed to Hospital from each Ward.														
	At all Ages.	At following Ages—Years.																																				
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	Shields.	Beacon.	St Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Unknown.	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Totals.
Smallpox	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	61	2	12	34	5	8	...	...	1	9	1	5	...	1	12	3	1	12	3	5	2	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	80	...	1	6	18	24	26	5	7	11	1	4	2	3	5	2	2	13	7	5	13	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	1108	10	288	754	39	17	...	...	55	135	34	82	29	59	81	61	85	82	144	110	81	70	...	47	97	27	45	21	50	33	14	48	34	93	69	33	33	644
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	22	...	...	2	11	9	...	...	...	3	...	1	1	3	1	3	1	1	2	1	2	3	...	...	...	...	...	1	3	...	1	1	...	1	1	1	...	9
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	5	...	...	...	1	4	...	...	...	1	...	...	...	...	1	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poliomyelitis	3	...	3	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	319	1	4	73	76	108	55	2	34	33	20	29	19	18	25	17	25	16	23	23	18	18	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other forms of Tuberculosis	188	5	39	87	32	17	6	2	15	20	8	11	22	16	17	9	11	8	17	14	6	13	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	1787	18	347	956	182	188	87	9	112	213	64	133	73	100	142	96	126	132	197	158	122	117	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE 8.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.

(a) VISITS.

Nature of Visits.	W. Clark.	R. W. Weir.	R. Ayre.	W. Hill.	Totals
General District Inspection	4215	2877	5447	3791	16330
Inspection of Works in Progress	590	206	1060	433	2289
Interviews and Appointments	..	353	..	67	420
Investigation of Complaints of Nuisances	86	91	127	106	410
Smoke Observations	..	..	1	..	1
Testing Drains	35	6	30	13	84
Inspection of Seamen's Lodging Houses	..	71	13	33	117
,, Common Lodging Houses	..	17	42	24	83
,, Houses-let-in Lodgings	..	..	4	..	4
,, Factories	19	1	5	3	28
,, Workshops	95	12	19	74	200
,, Workplaces	2	..	..	..	2
,, Homeworkers' Premises	1	4	..	6	11
,, Bakehouses	47	..	4	24	75
,, Fried Fish Shops	85	..	9	1	95
,, Tripery	..	..	2	1	3
,, Dairy	..	..	1	..	1
,, Ice-Creamery	..	..	2	1	3
,, Picture Halls	2	..	5	3	10
,, Schools	2	..	..	..	2
,, Marine Stores	..	..	8	1	9
,, Stables	108	..	144	52	304
Taking Samples with Food Inspector	137	..	..	..	137
Infectious Diseases : Visits on Notification of cases, on Removal to Hospital, or on Disinfection of premises	537	561	261	222	1581
Visits *re* : Home-treated cases	107	244	60	102	513
School-reported cases	300	409	6	44	759
Smallpox Contacts	14	13	4	5	36
Deaths from Phthisis	14	36	38	36	124
Total Visits	6396	4901	7292	5042	23631

TABLE 9.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.

(b) PRELIMINARY NOTICES ISSUED.

NATURE OF DEFECTS.	W. Clark.	R. W. Weir.	R. Ayre.	W. Hill.	TOTALS.
Dwellings: improperly converted into tenements	1	..	1	1	3
tenements unfit for habitation	..	..	8	3	11
defective floors, walls, roofs, spouting, ventilation, lighting, etc	39	37	37	69	182
overcrowded	..	..	..	3	3
damp	4	6	8	8	26
neglect of cleanliness	3	..	3	5	11
absent water supply	1	5	..	..	6
Lodging Houses: defective floors, walls, drains, etc.	..	1	..	5	6
Factories, Workshops, etc.:					
defective floors, walls, ventilation, etc	1	..	2	3	6
neglect of cleanliness	2	..	3	2	7
Public Houses: defects in urinal	1	..	..	..	1
Stables: structural defects, absence of manure-stead,&c.	1	..	1	2	4
neglect of cleanliness,accumulation of manure,&c.	1	..	1	3	5
Outbuildings: dilapidated, dangerous	9	20	16	32	77
neglect of cleanliness	4	4	14	8	30
Cellar: let separately as dwellings	..	2	..	..	2
dangerous and insanitary	..	..	..	2	2
Yards: defective and unpaved	27	10	24	57	118
neglect of cleanliness	4	1	15	9	29
other nuisances in yards	8	5	8	9	30
Privies: insufficient provision	..	1	7	..	8
disrepair	76	83	39	28	226
neglect of cleanliness	17	4	24	14	59
Ashpit: insanitary	..	..	1	1	2
Ashbin: unsuitable	..	..	12	..	12
insufficient provision	..	..	1	3	4
W.C.'s: defective structure and fittings	5	3	9	4	21
defective "Fowlers"	..	1	3	2	6
neglect of cleanliness	..	1	5	3	9
Wash-ups: defective traps, waste-pipes, etc	45	47	27	60	179
Rain-Water Cisterns (underground):					
foul, defective, etc	5	25	14	14	58
Drains: absence of	1	..	2	..	3
choked or foul	20	11	28	35	94
defective drains, traps, gullies, etc	23	9	20	20	72
Other matters: keeping animals	2	..	10	2	14
accumulation of refuse, foul water, etc	..	3	5	6	14
other nuisances	..	..	1	1	2
TOTAL DEFECTS	300	279	349	414	1342
Preliminary notices issued during the year to 572 owners	255	263	260	352	1130
,, ,, ,, ,, to 333 occupiers	45	16	89	62	212
Statutory notices issued during the year to 28 owners	24	15	24	9	72
,, ,, ,, ,, to 1 occupier	1	..	..	..	1

TABLE 10.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.

(c) STRUCTURAL IMPROVEMENTS EFFECTED.

NATURE OF WORK.	W. Clark.	R. W. Weir.	R. Ayre.	W. Hill.	TOTALS.
Dwellings and Lodging Houses:					
rooms and cellars closed	..	3	..	59	..
rooms demolished	..	..	..	17	..
repairs to walls, roofs, floors, spouting, etc.	49	89	94	69	301
site concreted	1	..	..	1	2
site drained	..	..	..	1	1
Factories, Workshops, etc.					
repairs to walls, roofs, floors, spouting, etc.	2	..	..	1	3
Stables: floor cemented	2	..	..	..	2
manure steads repaired or rebuilt	1	..	1	3	5
Wash-houses: provided or built	..	1	7	..	8
rebuilt or repaired	10	4	3	7	24
floors relaid or repaired	7	9	11	19	46
Outbuildings: provided	..	2	..	..	2
rebuilt or repaired	10	48	8	14	80
Yards and Areas: relaid	19	14	23	17	73
repaired	4	8	5	10	27
Ashpits: abolished	..	1	1	..	2
Privy Receptacles: newly provided and additional	1	1	..	2	4
rebuilt or repaired	100	83	23	56	262
W.C's: newly provided and additional (complete)	2	..	5	1	8
provided in place of privy receptacles (31)	1	2	22	4	29
,, ,, "Fowler closet (1)	..	..	1	..	1
basins, cisterns, etc., replaced or repaired	8	5	20	7	40
Dustbins: provided (fixed, 23; portable, 10)	1	2	25	5	33
Drains: abolished	.	.	..	2	2
provided	7	4	..	3	14
relaid	14	4	26	4	48
repaired	4	4	16	14	38
gullies, traps, etc., provided or renewed	31	7	55	14	107
Urinals: repaired	2	2	2	..	6
Baths: waste-pipes, traps, etc., provided	1	2	..	..	3
Lavatories: waste-pipes, etc., provided	..	1	..	..	1
Washups: of metal, replaced by stoneware	18	7	16	30	71
newly provided (complete)	3	2	6	..	11
traps, waste-pipes, etc., provided or repaired	31	39	20	39	129
Rain-water Cisterns (underground):					
filled in	9	17	12	12	50
repaired	..	1	..	4	5

TABLE 11.—SUMMARY OF METEOROLOGICAL OBSERVATIONS, 1913, taken at 9 a.m. daily, at the North Marine Park and Health Department, South Shields.

MONTH.	Barometer (corrected for elevation, temperature, &c.)	AIR TEMPERATURE.							HYGROMETER.			EARTH TEMPERATURE.		RAINFALL (in inches).				WIND.									
		Average.			Absolute.											Most in a day.			Direction at 9 a.m.: Number of days.								
		Maximum.	Minimum.	Mean.	Maximum.	Date.	Minimum	Date.	Dry Bulb.	Wet Bulb.	Relative Humidity.	At 1 Foot Depth.	At 4 Feet Depth.	Total Fall.	No. of days rain fell ·01" or more	Amount.	Date.	Average Daily Mileage.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
January ..	29.711	43.1	35.0	38.8	53.4	7	25.1	14	38.4	37.2	90	38.1	43.4	4.12	21	0.88	12	398	1	1	1	8	9	5	4	1	1
February ..	30.072	46.8	37.0	41.4	55.4	11	28.3	23	40.5	38.5	84	39.1	42.8	0.49	10	0.10	9 & 15	330	2	1	4	..	8	6	6	1	..
March	29.676	48.0	37.0	42.4	55.5	30	26.0	18	42.3	39.2	76	40.1	43.2	2.23	19	0.57	22	404	1	1	..	2	4	9	11	3	..
April	29.799	51.0	40.4	45.9	60.5	30	31.0	13	46.4	43.3	78	44.7	45.2	2.80	17	0.88	28	347	6	4	..	2	5	7	4	..	2
May	29.860	56.2	44.8	50.7	68.4	25	36.4	16	51.2	48.1	80	50.6	48.6	3.05	15	0.97	8	312	5	2	6	4	3	3	4	2	2
June	29.975	64.3	49.9	57.3	70.8	2	44.1	12	58.2	53.3	72	58.7	53.9	1.35	13	0.34	23	273	2	3	5	2	2	4	9	3	..
July	30.040	63.0	51.5	57.6	69.4	14	45.5	8 & 9	58.3	54.6	78	60.7	56.6	0.51	9	0.19	3	266	13	..	6	3	1	1	3	3	1
August	30.028	66.7	52.4	59.7	**80.9**	**3**	46.2	5	60.0	55.9	76	61.9	58.4	0.73	13	0.16	30	244	8	5	3	1	3	3	3	2	3
September	29.980	62.4	52.2	57.3	72.6	24	42.2	8	57.3	55.0	86	57.6	57.2	3.73	17	**1.17**	**26**	302	8	4	3	4	4	1	2	..	4
October ..	29.830	56.9	47.2	51.9	62.5	17	33.3	24	51.5	49.1	84	50.4	54.1	1.62	16	0.37	7	350	1	3	6	1	12	6	1	1	..
November ..	29.709	52.4	42.1	46.9	58.1	17	34.6	22	46.2	44.2	86	44.9	49.8	1.43	21	0.29	27	328	1	..	..	1	3	8	15	2	..
December ..	29.945	46.1	37.5	41.6	56.6	8	**24.6**	**30**	41.1	38.9	82	40.5	46.8	1.09	11	0.43	26	359	5	1	..	..	..	4	18	2	1
AVERAGES ..	29.885	54.7	43.9	49.3	..	..	..	..	49.3	46.4	80	48.9	50.1	..	..	..	..	326	..	..	..	..	..	..	..	..	..
TOTALS ..	..	..	..	..	..	..	..	..	..	..	..	..	..	23.15	182	..	..	..	53	25	34	28	54	57	80	20	14

The total rainfall at the Corporation Yard was 23.17 inches.

TABLE 12.

PREMISES DEALT WITH DURING 1913 UNDER HOUSING ACTS.

Situation of Premises.	No. of Houses.	M.O.H.'s Representation.	Closing Order made by Town Council.	Demolit'n Order made by Town Council.	Remarks.
92-94 East Holborn	1	22/4/13	7/5/13	...	
96-98 do.	1	22/4/13	7/5/13	...	
100 do.	1	22/4/13	7/5/13	...	
7-9 Laygate Street & 4 Swan's Hill	1	22/7/13	6/8/13	...	
11-13 Laygate Street & 5-6 Swan's stairs	1	22/7/13	6/8/13	...	
15 Laygate Street & 7 Swan's Stairs	1	22/7/13	6/8/13	...	
17-19 Laygate Street & 8-9 Swan's Stairs	1	22/7/13	6/8/13	...	
20-22-24 Johnson's Hill & 11-12-13 Swan's Stairs	1	22/7/13	6/8/13	...	
26-28 Johnson's Hill & 10 Swan's Stairs	1	22/7/13	6/8/13	...	
4 Pleasant Place	1	...	...	..	
Hart's Court	1	..	...	..	
7-8 Chapel Hill	1	...	...	...	
18 East Holborn	1	...	...	5/2/13	Referred to Borough Engineer
2 Payne's Lane	1	...	...	5/2/13	do. do.
Payne's Lane adjoining 33 East Holborn	1	...	...	5/2/13	Ruin demolished.
9-10 Tiney Street	1	...	...	5/2/13	Referred to Borough Engineer
1 Gibson's Place & 16 Back	1	...	...	7/5/13	Demolished.
2 Gibson's Place & 13-14-15 Back	1	...	...	7/5/13	Demolished.
Building at the rear of 65-67 East Holborn	1	...	...	7/5/13	Referred to Borough Engineer
2 Swan's Hill & 16 Back	1	...	...	7/5/13	do. do.
6 Swan's Hill & 17 Back	1	...	...	7/5/13	do. do.
7-8 Chapel Hill	1	...	...	7/5/13	Operation of Demolition Order postponed for three months.
Hart's Court; Building at back of 79 East Holborn	1	...	...	7/5/13	2 rooms demolished. Both houses repaired and Closing Orders determined.
8 Keppel Street, East	1	18/2/13	7/5/13	...	Sec. 17 (7).
13 Alderson Street	1	22/7/13	6/8/13	...	Repaired. Closing Orders determinated.
29 Wellington Street	1	22/7/13	6/8/13	...	4 rooms above shop. No demolition proceedings.
7 Walker's Court	1	22/7/13	6/8/13	...	Repairing.
do.	1	22/7/13	6/8/13	...	do.
31-33 Thames Street	1	16/9/13	...	...	Sub-Committee to visit.
18 Lower Thames Street	1	7/10/13	22/10/13	...	Made "safe"
—Shadwell Street	1	24/10/11	6/12/11	5/2/13	Borough Engineer to report.
29 do.	1	24/10/11	6/12/11	5/2/13	do. do.
13 &c. do.	4	24/10/11	6/12/11	5/2/13	do. do
Stob Yard, Stob Lane	1	24/10/11	6/12/11	5/2/13	Mostly demolished.
Mason's Land & Stob Lane	2	24/10/11	6/12/11	5/2/13	Borough Engineer to report.
1 Mason's Lane	1	24/10/11	6/12/11	...	Demolition under consideration.
40 & 66 Heron Street	2	24/10/11	6/12/11	5/2/13	Borough Engineer to report.
20 Long Row	1	24/10/11	6/12/11	7/5/13	do. do.
22 do.	1	24/10/11	6/12/11	5/2/13	do. do.
25 do.	1	24/10/11	6/12/11	7/5/13	do. do.
4 & 6 Thames Street	2	24/10/11	6/12/11	5/2/13	Demolished.
"Spotted Bull," Saltwell Lane	1	24/10/11	6/12/11	7/5/13	do
62-66 Wapping Street,	1	24/10/11	6/12/11	5/2/13	Mostly demolished.
Spring Lane	1	24/10/11	6/12/11	5/2/13	Borough Engineer to report.
15-31 Military Road	9	19/11/12	4/12/12	2/9/13	do. do.
28 Long Row	1	24/10/11	6/12/11	...	Repaired. Closing Order determined.
5-12 Heugh Terrace	4	20/8/12	4/9/12	...	do. do.